A LETTER TO A GENTLEMAN CONCERNING Alkali and Acid.

Being an ANSWER to a late Piece, Intituled, *A Letter to a Physician concerning* ACID *and* ALKALI.

To which is added
A Specimen of a new Hypothesis, for the sake of the Lovers of Medicine.

By *THOMAS EMES*,
Author of the Dialogue between *Alkali* and *Acid*.

Μωμησωτάι τις μαλ' ὃν ἢ μ[illegible]σεται
Τὰς κακοπραγμῶ[illegible].
Bonis nocet [illegible]arcit malis.

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A LETTER TO A GENTLEMAN CONCERNING *ALKALI* and *ACID*.

SIR,

WE have a *ſmall Champion* lately come forth for the *Acid Cauſe*; he conceals his Name, but he ſaith he is *a Gentleman*, hoping, I ſuppoſe, to find the better Quarter: But he profeſſeth his *Averſion* to ſuch an Undertaking, but that he is at length, and *at laſt overcome by Zeal for the Service* of his Acid Phyſician. And he ſaith that at *his firſt reading my Dialogue, he diſcover'd ſo much unbecoming Language, that had not Requeſts, as forcible as Commands, chang'd his Reſolution, he had never been condemn'd to a ſecond reading, much leſs to the Task of writing Remarks upon it.*

Well, the Gentleman is to be excus'd, becauſe he did it unwillingly; and I readily confeſs, there is indeed much unbecoming Language even with-

in the first eighteen Pages; and truly had it not been too nauseous, the Reader might have had a great deal more on't; but what he has, was but just enough to shew a Specimen of the immodest Self-applause, shameful Contempt, and abuse of all Physicians, wherewith the Pretender to a new Acid Hypothesis abounds, and what sort of Answer such Language deserveth. At which the Gentleman was so uneasie, that he leap'd over two Pages more where there is none; but the ground of Mr. *Acid*'s Hypothesis examin'd.

He tells us, pag. 4. *That undecent personal Reflections are no marks of Probity and Virtue, but are below the cognizance of a generous Mind*; and tells us in *Greek* too, *that it is Blasphemy.*

I answer, if it be Blasphemy to reflect upon the Follies and Confidence of a raw Empirick, boasting himself the only Doctor in the World; I think it is but just to be such a Blasphemer. And since there is nothing so foolishly said by such men, but catches Patients now-a-days, when so few understand Nature or good Sense, and they are so often caught to the damage of their Lives and Healths; I think it is not only the part of a good and generous Mind, and a Virtue, but a Duty to expose them, and that sometimes in the way *Solomon* advises, *Pro.* 26. 5. But I think no body hath expos'd Mr. *Colebatch* so much as he has expos'd himself, to the thinking part of those that read him.

The Gent. *is amaz'd*, he says, *to see the ingenious Author of the Hypothesis of Acids treated with the utmost Contempt and Scorn.* But I am as much amaz'd to see any Gentleman admire the Wit in his Writings, or Physician take him for the Author of any thing but the abuse of Acids; and that his Friend should say, *that not one Author has examin'd his Hypothesis by Reason*

Reason and Experience, when he hath read my Dialogue more than once, and confesses *it becomes Men of Letters, Gentlemen and Philosophers, (as Physicians are) to weigh and consider the force of every Man's reasoning.* I think it will be confes'd by those that are Judges, I have weigh'd Mr. *Colebatch*'s Reasoning, and found it very light; and I am now resolv'd to put that of the Gentleman, his Champion, also into the Scale, and see how much it comes to. I am glad the Gent. acknowledges Physicians to be Gentlemen and Philosophers; but I begin to doubt whether he be a Philosopher and a Physician; because he altogether blames Jesting, when it is well known to such Men, that some Diseases are cured thereby, and that Satyr is often prescrib'd against some Maladies endangering the Life and Health of Men, that have their root in the Mind; such as *Pride*, *Ignorance*, *Confidence*, *Covetousness*, &c. in a Practioner, which the Dialogue was compos'd as a Medicine to cure Mr. *Acid* of, if not incurable.

The Gent. says farther, *that Poetry is a very pretty thing; but agrees with his Doctor, that the Character of a Satyrist and a Physician are vastly different.* I am of the same Mind; but I find the Gent. does not love a Satyr, the *Panegyrick to the unknown Doctor* Colebatch would relish well enough with him; but he is not a *thorough Proselyte* to Acids yet; for a *Sarcastical Couplet* is too sharp for his Stomach, and he thinks *it should not be pres'd against its will to affront a Professor of Physick.* And I think it was not, in the case he means, but came only against a Professor and Abuser of Acids. But *Sarcasms* I'le maintain are Acids, or they are not *Sarcasms*; and Acid with Acid methinks should well agree: But perhaps these are Acids out of his Practice. But I'll say one thing more for them, they need not be

preſs'd, but are apt enough to come Volunteers, and muſter freely upon any proper Occaſion.

But the Gentlemen that value themſelves upon their Wit, he eſteems the more genteel Mountebanks. 'Tis well they are the more genteel ſort; and I ſhould chuſe, I confeſs, if we muſt all be Mountebanks, to be of that number. He allows *they ſhew more Wit and fine Language, in their ſarcaſtical Bills diſtributed by the Bookſellers, than what breaks forth from beneath merry* Andrew's Charcoal Whiskers, or wraps up *John Saffold's* Pills and Powder; *but the Nature, Deſign, and Effect of the Farce is the ſame.* He's a Conjurer! he can tell they all aim at Money with common ſucceſs, and ſo does Mr. *Colebatch.* But he that is bubbled on't, I think, had as good be bubbled by a witty Conceit as a fooliſh one; and if he has nothing elſe, have ſome Wit for his Money.

But the Gent, ſays, *he will never truſt his Life in the hands of a Phyſician, who takes ſo much pains to convince the World he is a rare Poet.* I confeſs a Man may be a rare Poet and not a Phyſician, and a Phyſician and not a Poet: But I think a Man that has Wit enough to be a Poet, may have enough to be a Phyſician, if he apply himſelf to that Study: But he that has not enough, I think is never the rather to be truſted with ones Life, *till by a Demonſtration he proves, that tho' a correct Canto will not cure a Diſeaſe,* as the Gent. ſays, yet

A dull Aſſertion that he can do more,
Than all the Doctors that have gone before,

will do the buſineſs. But for my part, I'll never truſt my Life in a Man's hands that hath nothing ſharp but Medicines.

But

But what has Poetry to do with the pretended new Hypotheſis of Acids, or the Dialogue between *Alkali* and *Acid*? What unlucky Wag has thrown a Diſtich at Mr. *Colebatch*, and hit a Gentleman alſo? And why muſt I anſwer for it?

But the Gent. comes to talk of Experiments, pag. 5. He follows Mr. *Acid*'s method, firſt he plays a little, and then he comes to work. And he ſays, *I have not given one Experiment, or laid down the proceſs of any one Medicine I would recommend to the World for the good of Mankind, or that might overthrow the Hypotheſis of Acids.* I anſwer, as for Experiments to overthrow the Hypotheſis of Acids, I leave it to the Judgment of the intelligent Reader, whether there are not enough to do it in my Dialogue; tho' ſome of them I find the Hypothetick knows not how to make, which is a ſhame, whilſt he profeſſes himſelf a Philoſopher and a Chymiſt: But he may have more before we have done. But as for commending my Medicines or ſelf to the World, in the manner ſome do, I count it but Quacking, and like it not, nor have any neceſſity ſo to do.

The People are fond of *Recipe*'s, and the Doctor knows 'tis not againſt his Intereſt to let them have ſome, his Books will ſell the better; and if he does not tell them they are to be had at reaſonable rates of the Author, and preſcribe the making them a more chargeable way than he himſelf makes them, the indiſcreet adminiſtration ſome Dablers make of them, does but breed buſineſs for the Doctor; but the rich and cautious will have Advice, and who ſo fit to adviſe with, as that honeſt Gentleman who is ſo kind as to let them know with what Inſtruments he does their buſineſs. I do not eſteem it impolitick in Phyſicians to publiſh ſome Medicines

to the World, or to permit Horſe-Doctors, or licence other ignorant Fellows, ſince they ſo frequently make work for one another. And I believe Mr *Colebatch did not offer his* unreaſonable *method of Practice in point of Honour, that the Learned might critically obſerve it*, with any hopes they would do ſo, but *that he might get Money* (of the ignorant,) which he has profeſs'd is *the only thing he cares for.* Neither do I think the Learned will ſpend their time in his trivial Books; nor ſhould I, had not Philanthropy, and my Duty to Mankind (not commanding Requeſts) engag'd me to oppoſe what I ſaw was likely to be dangerous to thoſe who ſhould have ſo little Judgment as to admire it.

The Gent. ſays, pag. 5. *He hath confirm'd his Arguments for Mr.* Colebatch's *Doctrine with variety of Experiments, but he reſerves a far greater number for his Service, if I, or any for me, think fit to anſwer.* 'Tis well he has a Reſerve, for his variety is ſmall, and not much to his purpoſe, as we ſhall ſee by and by. But let us have them that are ready, and I'll promiſe him I'll never requeſt any Gentleman to anſwer for me, being old enough to ſpeak for my ſelf.

Well, but the Gent. comes firſt, pag. 6. *to conſider my Arguments, whereby,* he ſays, *I endeavour to defend Alkali as not being the Cauſe of Diſeaſes, for that other Cauſes that are not Alkalies may be aſſign'd.* But I muſt tell the Gent. there is no ſuch Argument in my Dialogue; and had there been ſuch, I ſhould have been aſham'd of it, as he ought to be of ſaying ſo. It would be but a poor Argument, that Alkali cannot be the cauſe of Diſeaſes, becauſe other Cauſes may be aſſign'd: But that Alkali cannot be the cauſe of *all Diſeaſes*, when other Cauſes muſt be aſſign'd, is that which I think I have demonſtrated.

The

The Gent. ſays, my *Definition of the* Τὸ ἔνοχμον, *tho' granted, no way militates againſt the Hypotheſis of Acids. For when we ſpeak of the Cauſe of a Diſeaſe, which Phyſicians are ſaid to diſcover and remove, we always ſuppoſe the proximate Cauſe, which the* Τὸ ἔνοχμον *cannever be.* But the Gent. almoſt perſwades me here that he is more like to be a Gentleman than a Phyſician, becauſe he ſays, *we always ſuppoſe the proximate Cauſe*; that is, we Gentlemen, when as Phyſicians know well that the Proximate Cauſe is not the only Cauſe to be diſcover'd and remov'd: Of which I need not give many inſtances. The various *Aporrhea* of the Body, of themſelves innoxious by undue retention, are often alter'd and become hoſtile, which ill qualities are the Proximate Cauſes of divers Diſeaſes; the alterations of which ill Qualities are far from being the only things to be done, nor is it enough for a Phyſician to endeavour even the Ejection of the peccant Matter, but the faults of the Inſtruments of Secretion are to be amended, as the prime Cauſes of the Diſeaſes; ſo that if Alkali it ſelf unduly retain'd or abounding, were ſuppos'd the Proximate Cauſe of ſome Diſeaſe, yet there would be the Cauſe of that Retention or Abounding, as the chief Cauſe to be known and taken away by the Phyſician. But I fancy the Gent. if not a Phyſician, is ſo much a Friend to the Practice, he would willingly have the proximate Cauſes only meddled with; have the Pump plyed, rather than the Leak ſtop'd, leſt the Crew ſhould want Employment. The Gent. lets the Τὸ ἔνοχμον reſt here, ſo that if we will ſee what he has farther to ſay that it can't be the Proximate Cauſe of a Diſeaſe, and ſo diſpatch the Subject all together, we muſt go to the 10*th.* page, where he falls on him again for contending to have a ſhare with Alkali in the Cauſe of Diſeaſes.

Diſeaſes. He ſays, I *ſhould have told them what theſe exorbitant Deſires of the Will of Man were, whether Deſire of Money, Women, Revenge, or popular Applauſe: If I mean theſe,* Tyburn *gives proofs that by them the Blood comes to be retarded, as well as the ſubtile Liquors diſorder'd.* And I am of the opinion, that if the Deſire of theſe would produce or retain ſuch malign Particles, as he believes Alkalies to be, Mr. *Acid* had been mortally ſick of them e're now; and if ſimple Man-ſlaying were Death by the Law, ſome Acid Practitioners might e're now have been unable to ſecrete their own mortal Alkali, by reaſon of the aſtringency of their Collars, notwithſtanding the ſourneſs of the Crab-tree.

But the Gent. ſays, pag. 11. *he will not affirm the production of Alkali by the Operation of the Mind; but a diſappointment of the Mind he knows will of a ſudden cauſe a Relaxation of the whole* Syſtema Nervoſum, *whereby Perſpiration and all Secretions are obſtructed,* &c. *which often happens to Women: And by ſuch Relaxation of the Nerves, and Conſtipation of the Pores, there are frequently induced Convulſions,* &c. *and the Diſappointment is but an antecedent Cauſe, which Medicine meddles not with; but the* Materia ex qua *is Alkali's malign Particles, whoſe Secretion is thereby prevented, which retain'd is ſufficient to produce the moſt diſmal Symptoms.*

Here the Gent. is profound! But I would know of him, whether a Relaxation of the whole *Syſtema Nervoſum*, which he ſays is caus'd by a ſudden Paſſion, be not a Diſeaſe. But that a Relaxation of the Nerves ſhould cauſe ſuch univerſal Obſtructions, yea Conſtipations and Convulſions, muſt be found out by ſome new light in Philoſophy, that can demonſtrate, that looſing is binding and plucking together: But if he had conſider'd that ſome

ſudden

ſudden Paſſions of the Mind have not only let go into the Breeches that which ſhould have been depoſited in ſome more convenient Receptacle, but produced univerſal Sweats, he would hardly have been of that Opinion.

But the Gent. *defies me to prove that Nature ever ſecretes any thing in a ſtate of Health, that will come under the denomination of an Acid. A Morbid Body*, ſays he, *when the Nerves are relax'd, will ſometimes eject the moſt benign Juices*, &c. *as in Scrophulous, Cancerous, Venereal, and Cachectical Bodies.* Here the Gent. has caught himſelf, as I will prove by *Argumentum ad hominem.* Nature ſecretes common Salt in the Urine plentifully, and *Saliva* in a ſtate of Health, both which he has aſſerted to be Acids ever ſince he has been a Proſelyte to the Doctrine; therefore Nature in a ſtate of Health, according to his own Opinion, ſecretes things that will come under the denomination of Acids. What's become of his Defiance? But if he recants, and ſays theſe things are not Acids, then he loſes as much another way, and I'll ask him what he thinks of the *Succus Pancreaticus*, which is ſecreted into the ſame place the wicked Bile is unloaden. But he ſtumbles as bad in what follows. The Relaxation of the Nerves before caus'd Obſtructions, and retain'd the malign Alkali; but now it ejects the moſt benign Juices, and that in Scrophulous, Cancerous, Venereal, and Cachectical Bodies, whoſe Recrements, according to the Gentleman, are the moſt benign Juices: But I believe theſe Patients, and ſuch as have been too familiar with ſome of them, ſometimes have not found them ſo friendly. But the Gent. takes no notice that the too rapid motion of the Blood was aſſign'd as another morbous effect of ſudden Paſſion of the Mind.

Now

Now we must go back to the 7*th*. Page, where the Gent. gives his Opinion, *That the undue Conformation of the solid parts is no Disease*; but to make his Opinion good, he will suppose *that they retain their due Texture, and duly perform their Offices*; he's a cunning Man! *he instances the Organs of Hearing, Seeing, Smelling, and Tasting, being disproportionate as to size and shape, are not call'd Diseases.* But if he had consider'd a little, or askt some Physician, methinks he might have understood, or been inform'd, that an Eye, for instance, being unduely form'd, too flat or too protuberant, the Humours too much or too little, too thick or too thin, are the Causes of divers Defects of Sight, a great Tongue a hindrance to the Speech, *&c.* He enquires *whether a cartilaginous* Aorta, *which*, he says, *is what Physicians call the Bone of a Stag's Heart, did ever cause a Distemper*? He might as well have askt Physicians, whether ever they heard the Stag complain of it. But he is ill inform'd by those that tell him that a gristly Artery is a bone in the Heart. And now I am speaking of the great Artery, it brings into my Mind an Observation I have read, of divers Persons that died with very odd Symptoms, whose Disease could not be found out or remedied, 'till by dissecting one, there was found a large Worm in the great Artery near the Heart; which I think was very unlikely to be produc'd by Alkali or Acid either. This case was very uncommon, but Worms in some parts of the Body are very frequent, producing bad Effects, and very unlikely to be caus'd by Acid or Alkali, both of which given are very effectual to destroy them. He says, *I cannot assert that ever any Man was diseased, or died, because of narrow Veins or small Lungs.* I answer, narrow Veins must needs contain less Blood, and if disproportionate

portionate to the Body, (otherwise I don't call them narrow) little Blood must needs give little Heat and Vigour, and small Lungs must needs receive but little Air, and drive on the Circulation of the Blood more slowly, which enclines to divers Diseases.

The Gent. says farther, *he hath often observed in dissecting Bodies who have had one Kidney obstructed by Stones, Gravels, &c. that the sound Kidney hath been enlarg'd considerably, and hath perform'd the Office peculiar to both; and to prove the distemper'd Kidney caus'd by an Alkali in such cases, he would have the Stones, Gravel, &c. examin'd, which will give the Phœnomena of the most fixt Alkali.* Here the Gent. asserts himself an Anatomist, and to have often made Dissections, where one of the Kidneys hath been useless; whereby he would seem something besides a Gentleman. 'Tis no very common thing to find one Kidney useless: not one Dissection perhaps in a hundred gives such a Case, yet he has often observ'd it: I confess I never dissected such a Body but once, and the other Kidney was no larger than ordinary, but that affected was nothing but a Bag of Stones, and Matter, of which Stones would have been generated, which was white and soft like a Pap or thin Mortar, full of Stones and Grit, not Alkali Salt. But how one Kidney should perform the Office peculiar to both, I don't understand; or how an Alkali should be the Cause of a Kidney: I rather guess it peculiar to the Gentleman to talk so. I am sure the examination of the Stones will no more prove an Alkali the Efficient either of the Kidney, or Stones in it, than the Pyrotechnical Analysis of Bones will demonstrate that any one of the Products made them. The *Calculus* will not give the *Phœnomena* of the most fixt Alkalies, as he says, but yielding a volatile Salt and Oyl, leaves a *Caput Mort.*

Mort. insipid, having no signs of a fix'd saline Body in it. Nor have we such a thing as a fixt Alkali in Animal or Vegetable Substances, but it is produced by burning those things that contain the Materials of it, nor are Alkalies coagulable into Stones, without meeting with larger quantities of other Matter, which with more reason may be said to be the Cause of the unhappy Concrete.

Our Gent. tells us, pag. 8. *That a large Liver is no more a Disease than a large Nose, but of excellent use to secrete the Bile, that most pernicious Excrement of the Body; and the larger the Liver, the more Bile it will secrete, and so much the more we are benefitted. But a large morbid Liver he would have granted to be caus'd by a superabundance of Gall.* The Gent. is resolved the Gall shall be an Excrement, and the most pernicious one, forgetting *Alkali it self*, while the Gall is but a compound. But methinks, whoever considers the place into which it is discharged, must be of another Opinion, or believe the Animal Oeconomy very ill contriv'd. If this Liquor had no use, but were to be rejected as a mere and pernicious Excrement, one would have thought it in vain separated out of the Blood, to be poured into the nutritious Juice before it enters the lacteal Veins; and the more on't the better would be very strange. One would have thought a Gentleman's Nose might have been large enough to smell out some use for the Bile, better than to make a large Liver; and for a large Liver, better than to make a great deal of Bile.

But pag. 9. he shews admirable Sense, for he tells us, *It is from Particles of Matter admitted into the Blood, that is both the Cause of the Disease, and of the thickness or thinness of the Blood*; and the reason he gives is, *If there were not a retention of some Particles*

which

which ought to be carried off, or admiſſion of others that ſhould be prevented, the Blood would be neither too thick nor too thin, but always the ſame. The thickneſs and thinneſs of the Blood then are both from Particles admitted into it, becauſe it would be neither too thick nor too thin, were there not a Retention of ſome that ſhould be carried off, or an Admiſſion of ſome that ſhould be prevented. But what's this to prove Alkali the Cauſe of all Diſeaſes, any more than to good ſenſe? But what comes after is profound, that *in Phyſick it may paſs for a Demonſtration, that if you find the Blood of one that has the Rheumatiſm, Scurvey, or Gout, to abound with Alkali, and be viſcous, and when he is cur'd by the uſe of Acids, you find it yield leſs Alkali, and be florid, and of a good Conſiſtence, it is to him a Demonſtration, the Diſeaſes came not from Acids but from Alkalies.* That is, if the Blood have indeed too much Alkali, and thence be viſcous, and the Perſon be cured by Acids driving out and diminiſhing the Alkali, and reducing the Blood to its due Conſiſtence, the Diſeaſe was caus'd by Alkali, and cur'd by Acids. That is, If the Diſeaſe was caus'd by Alkalies and cur'd by Acids, it was caus'd by Alkalies and cur'd by Acids; a Wit! But there's an *If* in the caſe, which makes the Argument worth nothing: For if this cannot be found (as I am ſure it has not yet by any certain Experiments the Acidiſts have given us) we are never the better for the Suppoſition. But he ſays, *it will appear that this is matter of Fact to any that will make the Experiments. And he dares affirm, that I can't produce one inſtance of a Perſon cured of thoſe Diſtempers by Alkalies.* But I ſay he ſhould not be ſo confident that it will appear ſo to any Man, unleſs it had appear'd to ſome one that hath try'd it. And

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as for his daring Affirmation, I dare affirm the contrary.

The Gent. ſays again, pag. 12. *That I ſuppoſe there ſhould be 10 or 20 parts of Alkali to one of Acid, and from either of theſe exceeding their Proportion, the Acid or the Alkali may be ſaid to abound, but while they keep to that Standard, neither can be ſuppos'd the Cauſe of a Diſeaſe.* I ſay ſtill, that whatever the Proportions are, either may exceed and cauſe a Diſeaſe, the one as well as the other, if there be any ſuch thing as their exceeding; but when in due proportion, neither can be thought ſo to do while duely mix'd, but if ſeparated and lodged apart in ſome place, tho' there is no more than there was in the whole Body, yet the Part where the ſeparated Acid or Alkali is lodged, may ſoon ſuffer their bad Effects. But if there may be ſuppos'd 20 parts of Alkali to one of Acid in a Man in a ſtate of Health, (tho' I believe there is a greater difference) yet it may well be thought that the Proportion differs in divers Perſons, though all in Health, yea in the ſame Perſon at divers times, though he be well; wherefore his Inferences that theſe Proportions are conſtantly to be found is not natural, nor does he imagine how hard it will prove to find them, if he ſhould attempt it. But he ſays, *he has been in Health for ſome Years, and ſo his Blood muſt, on this Suppoſition, have abounded with ſuch like Proportions of Acid and Alkali.* That is, ſuppoſe in a ſtate of Health a Man's Blood ſhould have 20 parts of Alkali to one of Acid, the Gentleman being in a ſtate of Health muſt have his Blood abound with Acid and Alkali; he abounds in Acid Diſcourſe! and ſuppoſes they are in due proportion, yet he ſays it follows they abound, yea and both at the ſame time. *He ought,* he ſays, *therefore to have a care that what he eats and drinks*

drinks ſhould have but one part of Acid, to 10 *or* 20 *of Alkali, but he has taken other Meaſures, for he has drank within this Year one quart of Crab-Verjuice in* 24 *hours, which was ſufficient to impregnate his Blood with ſix times the quantity.* He's a crabbed Gentleman, I believe; but I ſuppoſe he would not be thought to drink a quart every Day for this twelve Months, but in ſome one Day within the time; however we don't know, but that he may have a very large Liver, from whence he may abound with the pernicious Alkalous Excrement Gall, and that muſt meet with his Verjuice before it get into the Blood, unleſs it has diſcover'd a way through the *undiſcover'd paſſages at the bottom of the Stomach*; or his Blood may abound with Alkali, and ſo he may bear more ſharp Doſes than ſome Folks can. Beſides, if he will believe what Dr. *John* his Maſter hath taught him, *viz. That the Blood can't ever abound with Acids, either in a morbid or healthy State; for the Stomach will reject whatever is too much, but is often defective in conveying in enough, and that there is never any Acid in the Blood but in a ſtate of perfect Health.* I ſay, if he believes this as he ought to do, all the ſtore at the *Verjuice Coffee-Houſe* will neither hurt him, nor help him. But on the contrary to what he aſſerts, I my ſelf, and many others are as healthy as he, *as vegete and ſprightly*, and yet eat moſtly things abounding with Alkalies, as freſh Meat, Fowls, Fiſh, Milk, *&c.* And neither love nor want ſour Sauces to help the Appetite, and find nothing ſo hurtful as Acids. But the Gentleman I am perſwaded commends Acids rather for the Wealth they bring the Doctor, than the Health they bring the Patient; for the Doctor ſeldom takes Phyſick. *But he ſays, he could give a multitude of Inſtances, where Gentlemen have complain'd of their Diſeaſes being exaſperated by taking*

Medicines, Phiſicians call Alkalies, but ſoon wonderfully reliev'd by Acids, the truth of which a multitude of Apothecaries in this City will inform you.

The Gentleman I find is a fellow Citizen with his Phyſician, and needs not much Epiſtolary converſation with him. And we cannot but think he would now be thought ſome man of great Practice, though he was ſhy at firſt, and call'd himſelf a Gentleman, when a multitude of Gentlemen make their complaints to him. But he would, I ſuppoſe, have Gentlemen-Patients, to whom there is little odds whether he ſpeak ſenſe or no; if he be but confident, and ſo profeſſes himſelf a Gentleman. But thoſe Medicines, he ſays, they complain of, tho' Phyſicians call them Alkalies, poſſibly Gentlemen may call Acids, and ſometimes do Cures with them, and relieve the Patients: For I believe, I ſhall find the Gentleman but an ill judge before I have done. But we are to be inform'd of the truth of the Gentleman's Aſſertion, by a multitude of Apothecaries. I confeſs, I never thought it worth while to enquire, but I never heard any one ſuch ſtory related by an Apothecary, or his Boy, tho' I have been in Town ever ſince the wonders of Acids have been talk'd of; but I have been told of divers mortal Cures ſoon done by the Acid method, even in Diſeaſes that ſeldom uſe to kill, and in ſuch Patients as have often been recover'd by Alkalies.

The Gent. ſays, pag. 13. *That I aſſert there may be Acid enough in the Blood to cauſe a Diſeaſe, tho' it will not turn the Syrup of Violets green, but have not proved it.* No truly, I have not proved it, nor ever was ſuch a Fool as to aſſert that Acid would turn the Syrup of Violets green. But if he will try, I'll warrant him he may inject Acid enough into the Blood to cauſe a Diſeaſe, and kill,

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and yet he ſhall not find the Serum of the diſeaſed Blood turn Syrup of Violets red.

The Gent. ſaith, pag. 14. *That from the 24 page of my Dialogue to the 29, there's nothing but ſcurrility, and quotations out of* Etmuller, Hoffman, Helmont *and* Hypocrates, *ſo that the ſtrength of my Arguments depend altogether upon an* ipſe dixit. As for what he calls Scurrility, I ſhall not excuſe it, the recitation of *John's* panegyrical abuſe of the College, and dull praiſe of his own admired ſelf, muſt needs bring ſome ill Language into the pages; nor did I, without the adviſe of the wiſeſt Man, anſwer a Fool according to his folly, leſt he be wiſe in his own Eyes. But the Gent. ſeeing ſomething he did not like, or care any more to ſtir in, makes too much haſt over the 5 pages, or elſe he might have ſeen ſome notable Quotations out of *Colbatch de Aſsheadis*, viz. *That the Blood has never any Acid in it, but in a ſtate of perfect Health. That all Perſons have ſome degree of Sickneſs. That overmuch fatneſs, if it may be call'd a Diſeaſe, is caus'd by Acids.* Yet that Acids (*tho' never in the Blood, but in perfect Health*) mortifie and expel the Luxuriant Alkalous Particles, *make the thick Blood thin, and the thin Blood thick: But that he that can ſhew how this is done, muſt be as wiſe as the wiſeſt Man that ever was, or ſhall be*; *but yet he tells us how Acids do theſe things, by being differently ſpecified with other things.* Therefore the Gentleman has not done genteely by me, in ſaying, there was nothing in the 5 pages but ſcurrility, and quotations out of *Helmont*, *Hoffman*, *Hypocrates*, and *Etmuller*, whoſe *ipſe dixit's* I hope are yet as good Arguments with the Phyſical World, as *Colbatch's*, or any ſmall Author's of greater Confidence, and little time, and Practice. *He ſays alſo that I have*

falaciously taught a wrong way of experimenting, whether Acids will thicken and coagulate the Blood; for he understands that I made my Experiments on Blood that had stood, when the grumous part was coagulated, which is a very irrational way. I answer, his understanding is too short, I did not make a few Experiments on Blood, or a few ways; I have not only tryed Blood when cold, or in a Porringer, but let it run out of the Vein unto Acid, and other Liquors, and that diluted, and with warm Water. If the Acid be much it will make a great alteration; if little, proportionally; but tho' it be so little as to make no alteration sensible to the Eye, yet the Acid particles may pin together some of the Globules of the Blood, so as to make a Figure, and size, that will not pass some small Vessel or other, and that stop more, and that stagnated Blood may corrupt, and get a peregrine ferment, and either produce some topical Maladie, or excite some disorderly fermentation in the Blood that presses upon it. But as to the Gentleman's question, *whether Acids diluted and taken inwardly will coagulate the Blood when its warm, fluid, and perpetually circulating through it's Channels, and a due commixture made of all its parts with whatever is ingested?* I answer, This Question amounts to this, whether the Blood will be coagulated by Acids while it retains its due Motion and Consistence; that is, in short, whether the Blood will be coagulated while it is uncoagulated? A wise Question!

But he tells us, *to convince us, that Acids will not coagulate the Blood when judiciously used,* (*judiciously*, that is I suppose by the prescription of an Acid, Dr. or else they may.) *We may take 4 or 5 drops of Oyl of Vitriol, or Sp. of Niter in 3 or 4 spoonfuls of Water;* &c. *Such a proportion of Acid is as much, or more*

more than can be admitted into the Blood at any time, when taken inwardly. But how does the Gentleman know that no more can be admitted? Why he says so, and he'd have us believe him. Well we will for once; but then say I, I doubt Acids will do no wonders in casting out the Devil Alkali: For suppose a Man should have 12 Ounces of Alkali in him (which is a small quantity to what may well be supposed,) but by some error in Diet, or by some other means he has 13 or 14 Ounces; 4 or 5 drops of Oyl of Vitriol, or Sp. of Niter will do very little towards expelling, or mortifying an Ounce or 2 of Alkali, as any one may see by mixing such Quantities; nor can the Gentleman ensure that small Cargo of Acid to arrive safe into the designed port, but ten to one some part of it may be lost by the way, splitting on some Alkalous Rock in the Stomach, or be pyrated by the Gall, and so carried another way out of the body. But tho' there is great doubt what may become of it if given inwardly, yet it is certain it may be mixt in what quantity one pleases in a Porringer; but then whether the Porringer would not borrow a little of it, or lend it some Matter to make *Sacch. Saturni* of, I suppose the Gent. never enquired, or whether the Goose Quill he stirs it with, and the Water does not do more to hinder its Coagulation, than the Acids did to hinder or promote it. But we come to the Gentleman's Experiments.

He tells us, *the way to make* Experiments on Blood is, *having open'd a Vein, begin to drop your Acid mixture into the Porringer, and agitate it with a Goose Quill till the Blood is cold.* And *by this method, he says, he has with Oyl of Vitriol, and Sp. of Niter,* &c. *preserved Blood fluid, and also free from Putrefaction, the last of which, is what neither Volatil, nor fixt*

Alkalies will do, as may be seen by the following Experiments.

EXPERIMENT 1.

He mix'd with 5 *or* 6 *Ounces of Blood,* 6 *Drops of* ♎ *of* ☉ *diluted in* 2 *Ounces of Water, and it preserved the Blood fluid, gave it a better colour and consistency than some of the same he mix'd nothing with, he kept it in a Viol* 18 *Days, and it was equally free from any smell, or signs of Putrefaction, as when it stream'd from the Vein.*

In Answer to which I say, he is not sure that the 2 Ounces of Water would not do more towards keeping the Blood fluid, thin, and of a bright colour, than the 6 Drops of ♎ of ☉ could do one way or other.

But to do the Gent. all right, and to Answer fairly to his Experiments, I try'd them more nicely than he did: For I took the same Proportion of ♎ of ☉ and Water that he did, and having made it just blood-warm in the Viol, I let the Blood of a healthy young Man run from the Vein into it, till I had that just quantity by weight in proportion to the ♎ of ☉ and Water, and shaking them well together, and stoping the Viol with a Cork, I set it by: It soon look'd of a muddy black Colour, and being open'd at 14 Days it began to stink.

EXPERIMENT 2.

The like proportion of Blood, he says, he mix'd with 30 *Drops of Oyl of Tartar, in* 2 *Ounces of Water, it seem'd to remain fluid in the Porringer; but having let it stand close stop'd in a Viol* 3 *or* 4 *days, the grumous part was precipitated, and it stunk most intollerably, and the smell was like that proceeding from a dead Body, whose Lungs or other Viscera have been Ulcerated.*

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The Gentleman has one thing very remarkable in this Experiment, *viz.* That the smell of the Blood was like that of one whose Lungs, or other Viscera, have been exulcerated. He has a very nice Nose doubtless, that can distinguish the smell of those parts from that of all other Flesh corrupted; 'tis wonder if he don't conclude the exulceration of the Lungs proceeds from Oyl of Tartar!

But I try'd this Experiment also, after the same manner I did the former; I open'd it at 4 Days, and it had no more ill smell than when it came from the Vein; at 8 Days I open'd it again, it was likewise free from any ill smell; so again at 12 Days, at 14, and at 18, and at 23, and at 28 Days, it look'd well, and had no ill smell, when some Blood that had nothing but the proportion of Water stunk in half the time.

EXPERIMENT 3.

He mix'd, he says, *with the like quantity of Blood, 20 Drops of Sp. of* ☿, *dulc. in 2 Ounces of Water, and it preserv'd the Blood fluid, gave it a better colour, hindering its parts from subsiding, nor did it stink in the least while he kept it, which was 20 or 30 Days.*

In this Experiment the 20 drops of Sp. of ☿ dulc. must have at least 10 of Sp. of Wine, which we know will preserve Blood. But I tryed this also as I did the foregoing, and having kept it 14 Days it stunk much, and look'd no better than that in which was nothing but Water. But in his

4 *EXPERIMENT*

He says he mixed 30 Drops of Sp. of ☼, *with 4 Ounces of Blood, and it preserv'd it fluid; but after 7 or 8 Days he open'd the Viol, and it sent forth a very offensive Stink.*

I also try'd this Experiment, as I did the others, and open'd the Viol at 8 Days, at 12 Days, at 16

Days, and at 20 Days, and it had no ill ſmell at all, laſtly at 28 Days was thin, and of better colour and conſiſtence than the Blood in any of the other Experiments, and had no ill ſmell; but that with the ♌ of ☉ look'd worſt of all.

The Gent. adds, *If theſe* four *Experiments are not enough to convince the Dr. of the falſehood of my Aſſertion, he has variety of others at his Service.* I anſwer, he whoſe commanding Requeſts oblig'd the Gentleman to write, needs no more to convince him. But I think if they will ſerve him no better than theſe have done, he will do better to keep his ſervice to himſelf.

The Gent. ſays, pag. 17. that whereas *I argue* a juvantibus & ledentibus, *and ſay that Acids are ſeen often to hurt in Hypochondriack, Hyſterick and Scorbutical Caſes, and in Ulcers, Iſſues,* &c. *which on the contrary are relieved by Alkalies, but he has but my bare word for it.* I ſay my Word is as good as anothers; but I could give Obſervations not only of my own, but of divers famous Phyſicians: But no Authorities, but thoſe of Acid Doctors, are any thing to the Acid Gentleman; who farther ſays, *ſhould he undertake effectually to prove that Acids are the only Medicines which cure thoſe Diſeaſes I have nanied, it muſt be by enumerating obſervations of Cures perform'd by them, which would make his Epiſtle too long.* Here the Gentleman ſpeaks well; for if he ſhould prove that Acids, are the only Medicines that cure theſe Diſeaſes, he muſt not only enumerate all the Acid Doctors Cures, (who I am well inform'd often Cure *ſine recidiva)* but he muſt enumerate all the Cures that have been done in the World of theſe Diſeaſes, and aſcertain us that all of them were done by Acids, which would indeed be too long for a Letter to a Man of buſineſs.

buſineſs. But I believe he would in his own Practice hardly be able to give us many inſtances of Ulcers cur'd with nothing but Acids, or be willing to be dreſs'd with nothing elſe himſelf. But to ſave the vaſt labour, he gives us a Catalogue of ſome of the moſt *celebrated Medicines uſed in curing thoſe diſtempers, as ſteel in its beſt Preparations, all the Acid Spirits and Elixirs,* Crem. Tart. Tart. Vitriolat. Sal. Succini, *&c. and refers to Dr.* Colbatch *his Authority.* But I muſt tell the Gentleman, Dr. *Colbatch* his Authority, and his reaſoning, are no better one than the other. Steel, Acid Spirits, *&c.* he ſays are the moſt celebrated Medicines in uſe, in the cure of the forementiond Diſeaſes. *Ergo,* thoſe Diſeaſes are cur'd by nothing elſe: And would that be good Logick, yet the Medicines enumerated are not all Acids, or cure as ſuch, as we may have occaſion to ſhew before we have done.

But our Gent. ſays, pag. 18. *He won't believe me that an Acid can be got from Blood or Urine, of either healthy, or diſeaſed Perſons, becauſe I have not told him the proceſs.* Anſwer, I thought I had told it plain enough to any one that underſtands a little Chymiſtry: And I can make him believe it very eaſily, but that I don't write to teach Gentlemen Chymiſtry, but to ſhew them the Ignorance, and groundleſs Confidence and danger of Acid Quacks. But he complains farther, *that I will not teach him the Legerdemain of mixing Alk. and Acid, ſo that no Acid, but an Alkalious Liquor ſhall be diſtill'd from it. An Alk. and Acid; ſo that neither Alk. nor Acid, ſhall be obtain'd, but a Salſum. Again an Alk. and Acid, ſo that neither Alk. Acid, nor Salſum ſhall be obtain'd, but an Oleum.* I muſt confeſs, *theſe tricks are Legerdemain,* and till he underſtands a little Chymical Legerdemain, he will never compre-

comprehend them, and I beg his excuſe for not teaching them, there is ſomething more than ordinary in them, and they muſt not be profaned. Τὰ ᾖ ἱερὰ ἔοντα πρήγματα ἱεροῖσιν ἀνθρώποισι, δείκνυται βεβήλοισι ᾖ ὐθέμις, πρὶν ἢ τελεσθῶσιν ὀργίοισιν ἐπιστήμης. Ἱπποκ.

But I will demonſtrate the truth of any of theſe Operations, when ever I ſhall have a ſufficient Reaſon for ſo doing.

The Gentleman alſo ſays, *The natural or artificial Conjunction of an Acid and an Alkali, which I ſay will make a Salſum, he calls an Acid, becauſe the Acid is moſt predominant, and does operate as ſuch; for Tartar Vitriolat. which I call a Salſum, diſſolved in Water, will work upon Steel as manifeſtly as Sp. of* ⊕, *which is allow'd to be an Acid.* I anſwer, he may call it an Aſs-head, if he will; but I ſay, where the Aſs-head is predominant, there is not the true Salt ſavour; and Tartar Vitriolat. if it be a Salſum as it ſhould, be has neither the Ac. nor Al. predominate; nor does its working on Steel prove it to be an Acid, or to Operate as ſuch; as the Gentleman himſelf, being better inform'd, and forgetting what he had ſaid, aſſerts, pag. 43. *Iron,* ſays he, *will be diſſolv'd by Acid, Alkali, or Sal nutrum,* and inſtances in *Sp.* of *Urin, Sp* of ✱, *Crem. Tartar, Tartar Vitriolat.* and *Com. Salt.*

The Gent. aſſerts farther, pag. 19. *That common Salt, by often diſſolving and cryſtalizing, will be ſo deprived of its Bittern, as to act as an Acid by diſſolving Steel,* &c. *But if you would do it at once, you muſt put an Ounce of Sp of* ⊖ *into 2 Quarts of ſolution of Salt, and then evaporate,* &c. *and you will have the Salt much more wholeſome, and uſeful in all Caſes; and pag. 20. having thus proved Sea Salt to be an Acid, he cannot imagine how it ſhould be the cauſe of the Scurvy, when there's ſcarce a better Medicine*

dicine known for its Cure than Sp. of ⊖. I answer, the Gentleman having quitted his Opinion, (as before said) pag. 43. that the solution of Steel is an Argument of the dissolvents being an Acid, I hope he will alter his Opinion in other things where he is mistaken, or at least see he hath contradicted himself, as his Master Acid used to do. But if he adds *Sp.* of ⊖ to his *Com.* ⊖, *I* confess that may work as an Acid in it, and do what the Salt would not do, but it will not be more wholesome or better in all Cases; for Bittern it self is good for something, tho' the Gentleman's Master *Colbatch* hath Damn'd it.

So if Sp. of Salt were a Medicine, good for the Scurvy, it does not follow that common Salt too much eaten may not cause it. And as to the Gentleman's Assertion, that there's scarce a better Medicine known for the Scurvy than Sp. of Salt, I say he talks as old Wives use to do; whatever they have heard commended, they will say is the best thing in the World. But let it be good; yet, if I thought he would not be angry, because I don't tell what, I would affirm, I know 2 or 3 better Medicines for the Scurvy. But he adds, *The Scurvy being the Symptom of a Putrefaction of the Juices of our Bodies, it will still look more like a Paradox, that Salt which is the known preservative of dead Flesh, should be the cause of Putrefaction in that which is alive.* I answer, a Putrefaction in the Juices of living Bodies, except in Sores and Ulcers, has not I think been shewn: But it is certain, that which will preserve dead Bodies, would kill living ones; as drying, for instance: and I believe even an Acid Doctor, if he were Sous'd, or hang'd up in a Chimney a little while with Bacon, (tho' he were very well salted first) would soon be of this Opinion. So

Sp.

Sp. of Wine, tho' it preſerves Fleſh, being drunk in too large a quantity will make corrupt Work, in the vital oeconomy; yea, I don't queſtion but ♎ of ⊕ Crab Verjuice, or Lemons, and Oranges themſelves, may be taken in quantities large enough to kill a Man, as I believe ſome Perſons have experimented. Nor is the Gentleman's reaſoning more ſharp, in ſaying, *Nor will the want of the ſpiritual Parts of Fleſh, and Fiſh, appear to be the cauſe of any Diſeaſe, when Phyſicians preſcribe to venerial Patients, Fleſh roaſted or boyled to dryneſs, and ſuch other food as yields the leaſt of ſpirituous, and volatile Alkalous Parts; as Water-gruel, Bisket,* &c. Phyſicians (whether they do wiſely or no 'tis no matter) preſcribe things that yield the leaſt volatile alkalous, and ſpiritual Parts in the Pox, *Ergo* the want of ſpirituous and volatile parts in our Meat, can't be the cauſe of any Diſeaſe. But I believe the Gentleman's Phyſician never preſcrib'd him Fleſh boyl'd to dryneſs. But he rejoyns as ſharply, that *if he did not deſign brevity, he could bring inſtances to prove that Acids are not the cauſe of the Scurvy, but the only ſalubrious Medicines in uſe againſt that Diſtemper.* I anſwer, it is good to be brief; but I don't know that I ever ſaid Acids are the cauſe of the Scurvy, and therefore he ſays nothing againſt me. But to prove they are the only ſalubrious Medicines in uſe for this Diſeaſe, he muſt know all the Medicines that are in uſe, and their ſucceſs. But inſtead of this, he gives us only a Story that another worthy *Gentleman told him, that having been long troubl'd with the Scurvy, by reading Doctor* Colbatch's *Tracts, he was prevail'd upon to eat Lemons ſtoutly, by which method he recover'd, after the ineffectual uſe of the Preſcripts of the Phyſicians of the beſt repute.*

This

This is what the Gent. has to ſay, to perſwade us that Acids are not the Cauſe, but the only Medicines in the Cure of the Scurvy. One Gentleman told another; but were Gentlemen infallible in connecting Cauſes, and Effects (as Phyſicians are not) yet the ſingle matter of Fact comes to us but upon the word of an unknown Gentleman, who 'tis ſaid was ſo lucky as to meet with Mr. *Colbatch* his Tracts, whereby (not to omit the beſt of the Story) he became ſuch a *prodigious Lemon Eater*, as that he ſoon arriv'd to the perfection of eating 30 in a Day, this was a perfection the Quaker never attain'd, 'tis pity he conceals his Name, I believe he might make himſelf as famous as *Will. Joy*, or the great Cock-eater.

The Gent. ſhews, pag. 21. that he has miſapprehended me, for I never ſaid as he would make me; *That we loſe more in weight, ſitting ſtill in a froſty Morning, than if we were in the Bagnio, or that the coldneſs and moiſture of the Air opens the Pores to promote Perſpiration.* But I ſay ſtill, there is certainly more matter carried off by inſenſible Perſpiration, than by ſweating, taking one time with another; and that a freſh air promotes Perſpiration, is not only proved by Seamens eating more, and voiding leſs other Excrements than thoſe at Land, but is reaſonably concluded from the conſideration of the diſſolving Power of the Air, whereby any tenacious Matter in the ſurface of the Body ſtopping the Pores is removed; and perhaps this is a chief Reaſon that a clear Air is ſo beneficial to divers ſick Perſons; and tho' the Air at Sea may be ſuppos'd more moiſt than the Air at Land, yet the Sea certainly ſends up fewer clammy Effluvia than the Land, that abounds with ſo many ſulphurous Matters.

Again

Again he says, pag. 22. That *I confess I can't see how an Acid can be separated from Sea Salt when in the Blood, and yet I affirm in the next page, that Acids are found separated in farther receſſes than the Stomach and Guts.* I answer, I did not then only confess, but do profess still, I don't see how an Acid can be distill'd from Sea Salt in the Blood, &c. Yet I affirm that Acids have been found in farther receſſes than the Stomach and Guts; as the Gent. also does, pag. 33. instancing the Pancreatick Juice. But I did not say from Sea Salt; for there are divers other things eaten and drank, that are indeed Acid, or capable of being made so, without the help of a strong Fire. And I affirm (as all Physicians that consider will acknowledge) contrary to the inconsiderate Assertion of the Gentleman, that there are other separations to be made of our Food, (tho' not of Sea Salt, which is ejected as it went in) requisite besides a dissolution of their Texture, or else the various Juices of our Bodies could not be maintained and repaired.

The Gentleman, pag. 23. talks of the relation I gave of Mr. *Smith*'s Death, by tasting an Acid Liquor in a Cistus of a cancerous Breast, more like a Gentleman than a Physician. For he saith, *a Man that is poisoned is commonly delirious on his death-bed, and 'tis not unusual to hear such accuse the most proper Medicine as the cause of their Death.* If he had been a little inform'd of the nature of Poison, he would have learnt that Poison is a general name common to many different and opposite things, that kill in small quantity with various and opposite Symptoms, and does not always make Men delirious, neither can he suppose this Cancerous Liquor was given Mr. *Smith* as a Medicine. *But supposing Mr.* Smith *was poison'd,* (adds he) *it will follow*

follow according to my Assertion, it was not done by an Acid, because I could not see how an Acid Spirit can be separated from any thing while in the Blood. I answer, I don't know where I said an Acid could not be separated from any thing in the Blood, but that Sp. of Salt could not be distill'd there; but had I said so, it will not follow that Mr. *Smith* was not poison'd by that Liquor, or that it was not an Acid; for that Liquor doubtless was produced in the part by a preternatural Fermentation, after whatever was the matter of it was separated from the Blood. *But he adds, granting it a strong Acid, how will you account for its not making way throw the Breast before amputation?* I answer, very easily; no dissolvent tho' ever so strong acts in an instant, but must have time; that had not time enough to do it. I will hold *Aq. Fortis*, or a stronger Liquor in my Hand without dissolving it. But he says farther, *if it had been an Acid it could not fail of raising an Escar on Mr.* Smith's *Tongue, and that would have fill'd his Mouth with a stink far surpassing that of any Acid Liquor.* Here the Gent. forgets himself, and contradicts what he endeavour'd before to prove, *viz.* That Acids preserve from Corruption and Stink; but he shews himself but a *Small Surgeon*, and little acquainted with Chymical Liquors. For an Escar does not stink so soon, tho' made with Acids, nor do the strongest Acids make them so hastily: I will taste *Aq. Fortis*, or any common Acid at any time without hurting my Tongue, but I can shew him an Acid Liquor that stinks, worse than any mortified Flesh he ever saw. But he presumes *that the Physician who told me this Story had the care of Mr.* Smith, *and fail'd not in giving the most celebrated Alkalies, which it appears did him no Service, wherefore he believes*

lieves the Liquor he tasted did not kill him, without other help. But to shew that all this is indeed presumption, I will bring the Gentleman to the Physician, if he pleases, before whom I am perswaded he will not so presume.

But the Gent. says, pag. 24. *That my supposition, that if the Blood in the small Pox, Scurvy, and Gout, yields more Alkali, it is hence that the Acid is precipitated and fix'd in the extremities by meeting Alkalies, is overthrown by analyzing the Chalkey substance in the Gout, which exhibits the Phenomena of Alkalies.* I rejoyn, I hope the Gent. will not any more urge that the Chalkey substance in the Gout, yielding the Phenomena of Alkalies, overthrows what I said in the small Pox, and Scurvy; nor does it, say I, necessarily disprove my Assertion even in the Gout; for I have told him that an Acid and an Alkali joyn'd, will sometimes yield no Acid in distillation, but an Alkali, as I can demonstrate at any time, tho' I have not yet thought fit to teach proud Empyricks, or all sorts of Gentlemen the Art of Chymical Legerdemain, whereby I can demonstrate that all the Experiments the Gentleman builds upon are fallacious. *He says also that he knows 'tis difficult to give judgment to a grain in the distillation of Blood, yet the difference is so manifest between morbid and sound Blood, that* 60 *or more grains may be allow'd for Perspiration, deficiency of fire, or waste in large Glasses,* &c. But I tell him, neither he nor his Doctor have made Experiments enough, or nice enough, to find a certain Difference. But if we should suppose that the Blood does in some Diseases yield by distillation more Alkali than in Health, it will not follow that the Disease was caus'd by Alkali, but the Alkali may rather be suppos'd the effect of the Disease; for it is well known

known, that even Bodies that will yield large quantities of Acid in Distillation and no Alkali, will by a fermentative Heat be so alter'd, as to yield a great deal of Alkali and no Acid; and in like manner the preternatural Ferment in some Diseases may so alter the Liquors of our Bodies, as that they may yield more Alkali, and less or no Acid.

But the Gentleman says, pap. 25. *My Experiment of the Saliva's turning the Syrup of Violets green, does not prove that it is not impregnated with a manifest Acid, which is what Dr.* Colebatch *asserts; for there are a multitude of other Bodies which will turn the Syrup green, yet have in them a manifest Acid, as Oyls and vinous Spirits, which tho' they have a manifest Acid, yet its so sheath'd in the other parts of the fluid, that it cannot be unlock'd or set at liberty, to exert it self by so clammy a Body as Syr. of Violets, yet they operate on other Bodies by vertue of their Acid, as Oyl of Turpentine will dissolve Copper, the Acid in Sulphur, Turpentine, Spittle makes Quicksilver easily embody with them*; and because I say, *its from the Turpentine's consisting of ramous and flexible parts, he thinks it is the same with saying, they consist of nothing at all; for 'till I shew him those ramous and flexible parts, he must belive it is from the Acid that they embody with Mercury.*

What the Gentleman says now is much to the purpose, I hope he will help to bring the Acidists to sense. For if the Saliva's turning the Syrup green, does not prove that it is not impregnated with, and does not act as a manifest Acid, then the Serum of Blood's turning Syrup of Violets green, does not prove that to abound with an Alkali, and not to be an Acid; and so what Mr. *Colebatch* asserts is a Mistake, and his Criterion fallible, and so the ground of his Hypothesis is gone, and the Gentleman must take his Doctrine merely upon his Word. *And if there are a multitude of other Bo-*

dies which turn Syr. of Violets green, that are to be denominated Acids from their quality, of which if they were divested, they would fail of their Intension which they perform with it, as he says, pag. 26. Then Gentlemen can be no more Judges of his Master *Colebatch*'s Hypothesis. But how the Gentleman should assert that vinous Spirits and Oyl of Turpentine, *&c.* have manifest Acids, I can't tell, unless the constant use of Crab Verjuce makes all things relish so with him, for I am sure he never made it manifest to any that was not an Acidist; and that Oyl of Turpentine's Acid can't be unlockt by the clammy Body of Syr. of Violets, and yet that it works upon the much more tough body of Copper, is very strange if true; but it's stranger that things consisting of ramous parts should be consisting of nothing, or that whatever is not done by Particles a Gentleman can see must be done by Acid; *but the Gentleman must believe it,* and who can help it? *But he professes he will not believe me, that insipid Calxes will kill Quicksilver, till I tell him more of it, for he knows none that will hold it so long as Saline or Acid Bodies.* Well, because he is now a Gentleman, I will tell him more of it than I did before. I did not say that Calxes indifferently will hold Quicksilver so long as any saline or Acid Bodies, what the Calxes of Gold and Silver may do, I will leave to them *that have made all the enquiry into the nature of Metals Human Industry is capable of.* I know it will *amalgam* with Metals that destroy Acids, but if you take almost any Calx, or Earth not too dry, you may rub Mercury in it so as to lose sight of it, and so as you shall not be able to separate it but by Fire: Yea Mercury is so ready to be concern'd with things that are no Acids, that it will become invisibly embodied with common Water, and the Parts and Humours of a Man's Body, notwithstanding all his Alkalies in Sickness and in Health.

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The Gentleman says, *the Trials I made on Saliva being of that taken from sound Persons often eating and drinking Acids, he understands Acids did not impair their Health.* I answer, he does understand no such thing, for Acid did often so much towards impairing, that had they not used alkalous things to over balance them, they would not have been sound long. And tho' in the distillation, as he minds me, *I* found a Salsum in the *Cap. Mort.* from which an Acid might be got, yet that Salsum *I* take to be nothing but Sea Salt, which would not be turned into an Acid otherwise than by a strong Fire.

Our Gentleman remarks also, that I say, *Saliva when evaporated yielded a grateful Smell: But his Dr. knows that Nutmegs, Cinnamon,* &c. *and all odoriferous Vegetables abound with Acid and Sulphur, from whence proceed their grateful Smells; Is it not then reasonable to conclude, that that pleasant Smell in the Saliva came from Acid and Sulphur?* I reply, the Dr. knows no such thing, he never saw Sulphur in, or got from aromatick or odoriferous Plants, nor does their Smell proceed from Sulphur and Acid, but from pure Oyls; the smell of Sulphur every body knows is not pleasant, but mixed with Oyls both become abominable Stinkers. But he gives a reason, such as it is, *for all animal Substances when tending to Corruption, emitting a noxious Smell, and from them in that state he cannot find a Salsum as I did from Saliva.* But I say, That from Animal Substances in a state of Corruption I can find a Salsum, as from Blood, Urine, *&c.* tho' he can't.

The Gentleman in Answer to what *I* said of the Stomach, that there's no need of an Acid there, and that my Stomach is best when there's not so much as to curdle Milk; replies, *that there may be an Acid in the Stomach, tho' not so much as to curdle Milk; for a small quantity of Wine, nay Vinegar diluted in Water, pour'd*

ſlowly into Milk will not curdle it, and Wines have in them a manifeſt Acid; and Vegetables, in whom Acid abounds, decocted in Milk will not coagulate it. I anſwer, A ſmall quantity of Acid, tho' not enough to coagulate Milk pour'd into it ſlowly, will yet do it if digeſted in a heat like that of the Stomach; but Wines are not manifeſtly Acid, unleſs they taſte ſour; and the Vegetables he talks of are nameleſs.

He ſays farther, pag. 27. *to convince me that the Saliva acts as an Acid, he will enquire what Juices are brought into the Stomach to cauſe Hunger, and he can find none but the Saliva; therefore he concludes Hunger is caus'd by the Juice ſtrain'd from the ſalival glands, and in Fevers, when that Moiſture is deficient, there is no deſire of Food; and alſo that Lemons and Oranges cauſe Hunger; and if Hunger is caus'd only by Acids, he would have me prove what Juice is brought into the Stomach from any other Part that yields more Acid.* The Gentleman is ſo profound at Reaſoning, one muſt ſometimes have a long Line to fiſh for his Arguments. Come on then, let us try to catch this. The Saliva acts as an Acid; and why? becauſe he can find no other Juice brought into the Stomach to cauſe Hunger; and if Hunger is caus'd only by Acids, I muſt prove ſome other Juice brought in from ſome other Part that yields more. Well, but if Hunger is not caus'd by Acids, or by Juices, and he has prov'd neither, then the Argument is gone. Yes, but Lemons and Oranges cauſe Hunger; then, I ſay, the Saliva may be excus'd from that Office, ſince Acid Doctors are ſo ready to convey them in. I wiſh they don't breed a Famine. But in Fevers, when the Saliva is wanting, there's no Appetite. But 'tis no matter, ſince Lemons and Oranges are more ſharp than the Saliva it ſelf, for the very thoughts of them, will put a Man's Mouth in diſorder. But if one may ſpeak freely

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to a Gentleman, I must tell him, a Clown would have given a better Reason of Hunger, that it is caus'd most commonly by want of Victuals, and not by swallowing ones Spittle, or eating Lemons and Oranges; for if one do neither, yet Fasting will bring that sense; and if one can get neither Lemons nor Oranges, the want of a Breakfast or two, will make one have a Stomach to ones Dinner.

But the Gentleman comes to prove Mr. *Colebatch*'s Opinion, *that there are some Vessels passing from the bottom of the Stomach to the Kidneys*; *and he confesses he could never find them in all the Bodies he hath dissected.* I believe so. Gentlemen don't use to dissect Bodies very oft; but yet to *prove these undiscover'd Canula's*, he gives us the Authority of several Stories; *one of a Man that voided by Urine great quantities of Herbs, and two Pills. Of another that voided a leaden Bullet the same way. And of a third, that pissed the Stones of Raisins. Of others that pis'd Needles, Alkekengi, and Melon-Seeds*, &c. *besides he has observed the Urine has been perfum'd in* 10 *or* 12 *Minutes, by eating Asparagus, or taking Oyl of Turpentine.* Now, say I, if we admit these Stories to be true as to matter of fact, it does not prove these undiscover'd Passages, unless the Gentleman could prove that these things could pass no other way; but as for those things that may be supposed to pass through very small Passages, there are such discover'd, thro' which they are more like to pass, than thro' these that are so very small, if any, that no Body could ever see them. But perhaps there is some Law in Nature, that those Passengers that are permitted to go the short way to the Kidneys, must shut the Door after them.

The Gent. is not pleas'd, pag. 30, and 31. that I assign a considerable use to the Gall; but he has either not considerately read, or mis-represented what I said

of it. He says, *that the Dung affording a fixt Salt* (as I told him) *like that obtain'd from the Bile, and the Chyle not appearing ting'd with Greenness, nor Milk yielding any such fixt Salt, are indications that the Gall is carried down with the rest of the Excrements, but not mix'd with the Chyle; neither, thinks he, will the narrowness of the* Venæ Lacteæ *admit so thick a Liquor as the Gall.* I answer, I did not say that the Gall was carried into the *Venæ Lacteæ*, and mix'd with the Chyle there, tho' it must be thought to receive its supply that way; as all the rest of Juices of the Body do. But any one will confess (except he that thinks himself bound to say any thing to defend a senseless Error) that the Gall cannot issue forth into the *Duodenum*, without being mixed with the Chyle, where it may very profitably seize the inimical Acid, and carry it out at the Back-door of the Body.

But the Gent. goes on to defame this notable Part in the vital Machine, and if what he says of it were true, one might think the Body might have been contriv'd better, than that such an Enemy should be placed in so inward a Recess, at liberty to disgorge its Venom into the nutritious Juice. And he positively affirms, that *the Gall's presence in the Guts can be of no use, but to be in a way of being ejected by Stool.* If it *can be* of no use we can't help it. But the Gent. hath not proved it useless. But he says, *If it be detain'd in the Guts, the consequences are dismal, yet if any quantities pass downwards, a Diarrhea ensues,* &c. 'Tis dismal indeed, that whether it stay or go its morbous effects are inevitable. I thought he said 'twas all to be ejected by Stool, yet if it go that way we must have a Flux. When the Bile is brought into the Stomach, I agree with the Gentleman, it causes Disorders; but *Viscera*, as he calls it, I think is a new name for the Stomach. But he says, *it may be known that the Co-*

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lick, Iliaca Paſſio, *Diarrhea*, *are Symptoms produced from that Juice by the Excrements being ting'd therewith.* But I ſay that is not a ſufficient Argument, but theſe Symptoms may be caus'd by too much Acid, wherewith it is loaded, and he ſhould have uſed another Senſe beſide Seeing, to know whether the Gall were too much in the mixture; I believe he wou'd hardly taſte it bitter.

But the Gentleman goes on to accuſe the wickedneſs of the Gall, pag. 32. in two inſtances, *One of a Gentleman he help'd to diſſect, having many defects in him, but particularly that the Gall-Bladder was empty. Another of a Child, who had the ſame Defects.* But there is nothing in the Relations, if true, that will prove that thoſe Defects found in the Bodies were caus'd by too much Gall, rather than that they were occaſion'd by too little; ſo I ſhall paſs it, only taking notice of two things remarkable. 1. That Gentlemen may diſſect one another. 2. That if it be true as he ſays, *that thoſe Bodies ſtink ſooneſt, in whom the Gall Bladder is found empty*, then the Gall muſt needs be allow'd to be at leaſt a preſervative againſt Corruption.

But he comes to Arguments, *to convince us that Acids are admitted into the Blood*; and that he does, by *putting us in mind of the Pancreatick Juice, which*, he ſays, *is manifeſtly acid to the taſt. And the Chyle taken from the* Venæ Lacteæ *of a Dog he taſted manifeſtly acid, when it has been kept ſome time; and from Milk's turning ſour.* But he had no need to prove that againſt me, for I never ſaid the Gall kept out all the Acid, but only hindred that ſo much, as otherwiſe would, goes not in. But as for diſcerning the acidity of the Pancreatick Juice, or of the Dog's Chyle, that, as he ſays, had ſtood, (and turned ſour) by his Taſte; it is no good evidence, becauſe he takes ſo many Acid Draughts in a day, that his Mouth, I doubt, can hardly

ever be free from a sour relish; and if we had not better reason than his Evidence, we should doubt of the Pancreatick Juices Acidity.

The Gent. has a farther attempt, pag. 35. to take off what I said, as to Acids coagulating and corrupting Blood, Flesh, Skin, Tendons, *&c.* and he tells us again, *my Experiments were tryed a fallacious way, for the Oyl of Vitriol alone will coagulate Blood when it's cold, and a separation made of its grumous Parts from the Serum, yet if it be diluted in a proper quantity of an aqueous Vehicle, which is the method of giving such Acids, it will preserve the Blood fluid, and free from Putrefaction.* I answer, the Oyl of Vitriol will coagulate the Blood, and alter its due Texture, before there is a separation made of the Serum, yea, while in the Veins, if injected; and in all reason that which will coagulate much in such or such a quantity, will do it a little in a small quantity. But Water will certainly dilute and make thin the Blood; and perhaps two ounces of Water will do more to thin the Blood, than two or three drops of oyl of Vitriol to thicken it, if they always accompany one another; and I do not think it possible to give so much Oyl of Vitriol in at the Mouth as is enough to coagulate the mass of Blood in the Veins, without killing by something it will do before it comes there; but Oyl of Vitriol, and such like things, being not subject to the ferments of our Bodies, and not so easily carried off by our Heat as Water, if they come into the Blood, must have their Being some where or other, and if they fix and adhere to any particular Part, may cause a small Coagulation there, or by thickning the Blood retard its motion, or by retarding its motion thicken it, and so give occasion to some stoppage in some small Veins; and wherever the Blood stagnates it will be coagulated and corrupted, tho' the thing that caus'd the Stagnation were not the immediate cause of the

the Coagulation and Corruption. But if Oyl of Vitriol and ſuch Acids be ſo excellent to thin the Blood, and conſequently accellerate its Motions, I would know what Gentlemen give it for in Feavers, and ſuch like Diſtempers, rather than Sp. of Sal. Armon. which will do ſo; if it cools, I ſhould think it is by retarding the rapid Motion of the Blood, and if the Blood run ſlow it is more apt to Coagulate. But perhaps Gentlemen Acidiſts give it not, becauſe it retards, or accelerates the Blood, thickens it, or thins it, cools it or heats it, but merely becauſe it is an Acid, and will do every thing, and that becauſe Mr. *Colebatch* ſays, Acids are the only Medicines that cure all Diſeaſes, he is ſure of it, (tho' he does no more Cures, except deadly ones, than others) and his little Satelites muſt ſay ſo, tho' neither he nor they can tell how it Operates, or why they give it.

But the Gent. urges farther, *that* 2 *Ounces of Sp. of Niter in a convenient quantity of Water*, (what that is he wont tell us) *preſerved an Embrio. And 'tis the Acid of Salt preſerves Fleſh and Fiſh from Putrefaction: For if you diveſt the Salt of its Acid, what remains will never do the buſineſs. Vinegar and Salt preſerve Cucumbers, Capers*, &c. I anſwer, 2 Ounces of Sp. of Sal. Armon. or of a Lixivium, yea or Bittern, that wicked thing, in a convenient quantity of Water, will do as much, or more; but why? Not becauſe they are call'd Acid or Alkali, but becauſe they are ſaline Bodies, which in ſuch quantities hinder Fermentation. So Sea Salt, not becauſe it is call'd an Acid, or an Alkali, or a Salſum, but becauſe it hinders that inward motion of the particles of Fleſh, *&c.* that would bring it to Corruption. But whether what remains, will do the like, when Sea Salt is diveſted of its Acid, Mr. *Acid*, nor his Gentleman ever tryed: For I muſt tell them what I find they are ignorant of, that

that Sea Salt will be distill'd all into Spirit, and be reduced all into Sea Salt again, it is so homogeneous a Body. But perhaps he means the Earth, with which it is distill'd, will not do. It is from the same reason that Salt and Vinegar preserve Cucumbers, *&c.* But yet I believe, if the Gentleman or his Physician either, were kept a little while in such pickle, he would find it not very friendly to the vital Frame, tho' it might keep them from stinking.

Our Gentleman, pag. 36. tells us, that I said, *that Animals that yield half their weight of Acid Liquor, will putrefie sooner than others, that abound with more Alkali. But he can't conceive what Animals these should be.* No wonder a Gentlemen is unacquainted with the *Materia Medica*, that can't recite what I said: For I did not say sooner than others, but as soon, or sooner than some others; not that abound with more Alkali, but that abound with Alkali; for those Animals don't abound with Alkali, but with Acid. But tho' he grants what I said, it won't follow says he, *That their Putrefaction is caus'd by the great quantity of Acids*; true, I never argued so, for Acid is their proper Nature; but notwithstanding they are such sour Fellows, they will corrupt, contrary to Mr. *Colebatch* his Assertion, *that it were impossible that Bodies full of Acid should putrifie.* But *he thinks the Animals putrified, because of the deprivation of their Acid, it going off in Effluvia.* But he is mistaken, for they were close stopp'd in a Glass, and perspire much more when alive.

The Gentleman goes on to make the same mistakes, asserting *that I said Vegetables that yield most Acid, and Oyl, will rot sooner than others*; when I said as soon, or sooner than some others; *and that Crabs, Oranges and Lemons will rot sooner than Apples, that are not so sour*; when I said sooner than some Apples that are not sour.

sour But he says, *Experience informs us how false this Assertion is; for Lemons are preserved longer than Apples, and will not putrifie but when bruised; and Lemon-pill will be preserved many Years by drying.* I answer, Lemons are preserved longer than some Apples, but not than others; and thanks to their Peel, which according to the Acid Doctors should rot first, being less Acid. He adds, that he hath kept a Vegetable 2 Years in Water, acidulated with Sp. of Salt, sound and entire. I believe it may be true, if try'd on some sort of Vegetables. But he concludes, *with a defiance to shew him an Alkali, Volatile or fixt, that will preserve Animals, or Vegetables from Putrefaction,* tho' I gave him 2 or 3 in the same Leaf, and I would give him another, if I thought he would still believe Bittern, that wicked thing, to be an Alkali.

But he comes, pag. 37. at length to Alum, and he is not contented, that I said Alum is not an Acid, nor has the effects of an Acid, because it turns Syr. of Violets green, and that Alum is us'd in making Leather, on the account of its astringency. But the Gentleman is of another Opinion, *for he finds 'tis the Chalky substance in Alum turns the Syr. green:* But his reason is no better than this, *that the Acid Sp. will turn the Syr. red*; very good; but I spake of the whole compound, that it was not an Acid, because it turns the Syr. green, and the Gentleman says it is, because one part of the product turns it red. But I have Master *Colebatch* on my side, who says, *those things that turn the Syr. green are manifest Alkalies, or abound with Alkalies.* But as for the Leather-dressing, he says, *'tis the Acid part in Alum, makes the Skins compact, because if the Acid be separated, the remaining part will be of no such use.* I answer, if these parts be separated, neither will be of use, the *Caput Mort.* will do nothing, and the Acid will spoil the Skins. I'll appeal to

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our Country-man, Mr. *Yardly*, the Philosophical Glover whether ever he dress'd Leather with Spirit of Alum.

He says, *he can easily answer for the rotting of Coffins, when the Bones that abound with Alkali remain firm; the rottenness is produced by the Alkalous Flesh, and Juices of the Cadaver, entring the Pores of the Wood, but the hardness of the Cortex of the Bones, having smaller Pores than Wood, will not so readily admit the Alkalous Effluvia.* But I answer, if Bones had any thing call'd a Cortex, and that were so compact, and there were not very large and numerous Pores in the Bones, yet one would think the Alkali already in their most intmate recesses, and wherein they are digested from without, should rot them sooner than the Coffins that have it on one side only, and are guarded within and without, with the mighty preserver Acid.

The Gentleman replies to what I asserted, that Acids are not the only things that will quench thirst in Diseases, for Niter will sooner do it. *That he knows by Experience if you take from Niter what is Acid, the remaining substance will not quench Thirst.* I answer, 'tis true, the Earth with which Niter is distill'd will not quench Thirst. If you take from Niter, what will by distillation be made an Acid, you take all away; for it will all come over in Spirit, but Niter given in a proper Vehicle will quench Thirst much better than the Spirit.

Pag. 39. The Gentleman has done ungenteelly by me, as well as in several other places, for he says, that I say, *Oyl of Vitriol is a noble Medicine in Feavers, and he agrees with me*; when as I said to Mr. *Colebatch*, that I would grant that Oyl of Vitriol might be, the best Medicine in continual Feavers he knew; but I knew a better, and that an Alkali.

He makes me agree with him, and then says he agrees with me, Oyl of Vitriol is far from

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a noble Medicine, ſo is Com. Oyl of Vitriol, from what may be made of Vitriol. *But he will believe that the Medicine, I ſay I have that is better, is an Acid; unleſs I will produce it.* But truly I can't help it if he will believe ſo; for I ſuppoſe good Medicine, and Acid are Synonymous with him: and whatever is proved to be good, is to him ſufficiently proved to be an Acid. But my Medicine is already produced, and if he or any other civil Gentleman will come to me, he ſhall taſte it. The Gentleman ſays, in the ſame Page, *That the uſe of Acids in the ſmall Pox is now ſo generally believed and practis'd, that he need not trouble us with Arguments from that Topick.* I anſwer, that it is a very poor Topick to prove the goodneſs of a thing, that it is generally uſed, (but I ſuppoſe he means by the Acid Doctors) and he might have told us Whores are now generally uſed for the great Pox, and have added, that it is ſeldom cured without them. *His ſtory which he ſubjoyns of the ſucceſs of Acids in the ſmall Pox*, I ſhall believe to be as he calls it, a *Story* not queſtioning the veracity of his Author, or his skill, who never imagin'd that Acids would cure a Diſeaſe.

In anſwer to my Aſſertion, That Alkalies, when in Solution, are not coagulated alone, but by meeting with Acids; and ſo that the Chalky Matter in the Gout will not prove the Diſeaſe caus'd by Alkali, rather than Acid; he replys, pag. 81. *That alkalous Salts, when inſolution are coagulated with what I call Alkalies; for Volatile Alkalies will embody with Copper, and make what is call'd Salt of Vitriol, if ſuffered to ſtand in the cold for a Month.* I anſwer, This inſtance is not a thing whereof he informs us, only I was uſed to think Copper diſſolved was not Salt of Vitriol, but if he has found Copper enough in gouty Perſons to coagulate the Alkali in their Blood; we will acknowledge

ledge he hath discover'd a Mine; but I am apt to think he can find nothing in the Body of Man that is an Alkali, that will coagulate the Spirit of his Blood. But he says farther, *That Sp. of Sal. Armon. being an Alkali in solution, will in distillation so unite it self with Lime a fixt Alkali, that he shall never be able to separate any Volatile Alkali Salt from it again. Indeed it may have the smell of a Volatile Alkali, but no Salt is to be got from it, as may be seen; for if it be 3 or 4 times distill'd from Lime, it shall be so far from what we call an Alkali, that it shall make no ebullition with a manifest Acid.* I answer the Gentleman, that the Volatile Alkali does not unite it self with Lime; if it did, it would either become a fixt, or the Lime a Volatile; neither of which is done, but the Vol. Alkali is so alter'd by the Lime, that it is better united with its Phlegm that holds it, so that both rise together. But I will teach the Gentleman how to separate a dry Salt from them again, when ever he is willing to practise Chymistry, and thinks it will do him a kindness. But he gives an odd reason of this his Opinion, that if 3 or 4 times distill'd from Lime, it shall be so far from what we call an Alkali, as not to make an ebullition with Acids. But I say, tho' it be so far from what Acid Gentlemen, who don't believe their Senses call Alkali, yet others will call it Alkali, who know that ebullition with Acids is not the only thing that shews an Alkali, for that very Sp. will destroy his Acids, and be destroy'd so far as to make a Nuter, but will not be irrecoverably lost.

He says, pag. 42. *that I grosly mistake what* Offa alba *is*, because I said it is a precipitation of the urinous Salt, not a Coagulation of the urinous Spirit, whereas *it is as much in a Coagulum at the top, as at the bottom.* I answer, the Gentleman, I believe, takes the notion of Precipitation only from the sound of the Word. But a thing is said to be in-

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ſolution when the Particles are inviſible in the Diſſolvent, but precipitated when they coaleſce ſo as to be ſeen, tho' being light they may not preſently fall to the bottom. But a *Coagulum* of a vinous Sp. and urinous Salt into one Body he never ſaw, or any ſuch Union but what is ſeparable.

But however, this *Offa alba* can't be made in the Veins, to coagulate into Chalk in gouty Perſons, as his Maſter teaches him. He asks *what I'll think of ſome he has ſeen drink high rectified Sp. of Wine?* I'll tell him, they are no ſtrange Fellows, nor more gouty than others; I have often done it, and never had the Gout. The Blood is not an Alkalous Spirit to coagulate it, nor can it be carried in through the Stomach, without being weakned too much to do the feat, if there were ſuch a Spirit within.

But he tells us a great Secret in Chymiſtry, *viz.* That if the Alkalous Sp. be diſtill'd from teſtaceous Pouders, it will be deſtroy'd. But I tell him he is miſtaken, he never ſaw the Alkalous Salt deſtroy'd in his Life. But then he tells us, *it will fix it ſelf*; but I tell him, if it be fixt it is not deſtroy'd; if deſtroy'd, it is not fix'd; but I tell him he is miſtaken in both, and never ſaw a volatil Alkali fixt, any more than a fixt one volatilized.

But the Gentleman comes, pag. 42. to ſomething more weighty, a very grand point, and that is to do what his Maſter *Colebatch* could never do, and yet it muſt be done, or the Acidiſts muſt knock under board, *viz.* to prove Iron an Acid. Iron they profeſſedly uſe, and nothing can be a good Medicine but an Acid they ſay, therefore they are caſt by their own Verdict, unleſs Iron can be made an Acid; help Neighbours! a Gentleman had need of commanding Requeſts to put him on this difficulty. Well let's ſee what Efforts he makes. *Iron*, ſays he, *making an Effervescence with*

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an Acid, is no more an argument that it is an Alkali, than that Butter of Antimony (which is allow'd to be a ſtrong Acid) is an Alkali, becauſe it makes an Effervescence with Sp. of Nitre or Vitriol, which are Acids. I fancy the Gentleman has learnt Logick of Mr. *Colebatch*, (altho' he would be thought to converſe with him only in an epiſtolary way) he argues ſo like him. Let us feel the ſtrength of this Argument. Butter of Antimony an allow'd Acid, making an Effervescence with Sp. of Niter an Acid, don't prove it an Alkali, therefore Iron making an Effervescence with an Acid, don't prove it an Alkali. But I ſay it don't follow, but the Gentleman is to prove Iron an Acid, and its not being an Alkali, if it were not, don't prove it an Acid, unleſs there were nothing but Alkali and Acid; and if its Effervescence don't prove it an Alkali, much leſs does it prove it an Acid; but I tell him Butter of Antimony does not effervesce with an Acid, becauſe of its Acidity, but becauſe of the Antimony in it not wholly diſſolved; the Butter is nothing but Sp. of Salt, and the body of the more metalline part of Antimony, mixed by an imperfect Diſſolution; but when the Sp. of Nitre comes and diſſolves it wholy, it makes an Effervescence in diſſolving it, but with Sp. of Salt alone it will not do ſo.

2. *Iron*, ſays he, *is not properly an abſorber of Acids, but of Salts in general, for it will be diſſolved by Acid, Alkali, or* Sal nutrum. But I anſwer, this don't prove it an Acid, if it be ſo. But he ſays, *if you put upon Filings of Iron a volatil Alkali, there will a gentle Ebullition enſue.* I ſay, it muſt be very gentle certainly, for I could never ſee it, tho' I try'd it on purpoſe; but perhaps 'twas an Ebullition caus'd by the Fire, upon which Acid, Alkali, vinous, oleous, or watery Liquors, yea or metalline, will boyl. *But to go a little farther, in the matter*, ſays he, *and do ſomething towards proving that Steel abounds with Acid and Sulphureous*

phureous Particles, which, he ſays, *I deny, and not with alkalous, and ſo conſequently ought to be call'd an Acid.* The Gentleman here confeſſes he hath done nothing to it yet, but now he is reſolved to prove Iron abounds with Acid, and ſulphureous Particles; but, I ſay, the conſequence will not be that it is an Acid if it do, unleſs thoſe Acid Particles are more than the reſt. Well, but firſt *he will ſhew that Iron is very much impregnated with Sulphur; and then prove,* contrary to my Aſſertion, *that there is a burning Brimſtome to be obtain'd from it.* Well this is a ſecret in Chymiſtry, I long to be at it; how is it done? Why *Filings of Steel flung through the Flame of a Candle will take fire ſooner than Gunpowder, and as ſoon as common Sulphur, and the violent motion of a Flint and Steel will do the ſame.* I anſwer, the Gentleman has ſhewn his Ignorance ſufficiently here; theſe Phænomena are not the firing of any thing combuſtible in the Steel, but only the heating ſmall particles of the Mettal red hot; the firſt by the flame of the Candle, the ſecond by the rapid ſtroke of the Flint, ſtriking off a particle of the Metal red hot, and ſometimes melted, as it may be ſeen, if caught on a piece of white Paper, and viewed in a Microſcope; but the Metal will be found unaltered; which, if it were burnt, would be otherwiſe. But if the Steel be ſoftned it will not do, the blow not meeting with ſo much reſiſtance, the Flint will ſtrike off too much to take the heat.

But again he is pleas'd to ſay, *that when the filings of Iron are in diſſolution in Sp. of Salt, the Fumes that ariſe will take fire; and if done in a convenient Glaſs, and a lighted Paper held to the Fumes, it will fulminate as loud as a Muſquet; and he hopes I am ſatisfied by this time, that there is ſuch a thing as common Brimſtone in Iron.* Truly Sir, I am not yet ſatisfied; I could never ſee the Fumes of Sp. of Salt take fire, and if they did, it could be nothing of the Iron, which won't riſe in Fumes, as any one may ſee by diſtilling the matter. An Exploſion, I know, may be, if the Mouth of the Glaſs

be too ſmall, or ſtopt; and ſo there may be of any rariſiable Liquor. But if this won't do, he is ſo kind as to give us a proceſs to make Brimſtone out of Iron. Now he comes to ſomething like a Tanſie, and I muſt write it down *Recip.* Sal Martis, *diſſolve it in common Water, add Oyl of Tartar more than will precipitate the Iron, evaporate all to dryneſs, flux it with Carcoal, and you will have a ſulphureous Salt, diſſolve in Water, and filter, and with diſtill'd Vinegar, or Sp. of Salt, you may precipitate a Sulphur that will burn and ſtink like common Sulphur.* I thank the Gentleman, but I muſt tell him, this Sulphur comes not at all from the Iron. For firſt, if his *Sal Martis* be that made with Spirit of Wine and Oyl of Vitriol, they will yield Sulphur enough without the Iron; the Oyl of Vitriol will coagulate the inflamable part of the Sp. of Wine into Brimſtone. If it comes not hence, the Oyl of Tartar has a Sulphur in it, as all fixt Alkalies have more or leſs. If this won't do, the Charcoal has enough; and if he uſes Vinegar to precipitate it, that can ſpare a little. But let him take Iron, and work on it how he will without any thing that can ſupply a combuſtible Body, I defy him, or a Horſe with a bigger Head, to get me a grain of Sulphur. So in his proceſs of Tartar Vitriolat. and filings of Iron, if true, the Sulphur comes from the other things, not the Iron. But he ſays, *he has not mentioned the proportions of his Ingredients, becauſe he is talking to a Chymiſt.* It ſeems he takes the Phyſician he writes to for a Chymiſt, but he talks not like one; for proportions of things neceſſary in order to divers reſulting Products in Chymiſtry, that a Man has not tried and obſerved, are not hit eaſily by any Rules in Chymiſtry, and in many Operations much depends on proportion. *But if theſe Experiments won't prove a Sulphur in Iron,* he ſays, *he may chance to produce 20 more, but theſe, he ſuppoſes, will ſatisfie the reaſonable.* I anſwer, I ſuppoſe theſe were not his worſt, and if he produces no better, 40 won't do to ſatisfie the skilful, whatever the reaſonable may think. But he ſays, he

he must conclude Steel to be rather an Acid than an Alkali. That's his Misery, that he must conclude it an Acid, tho' none ever got an Acid from it. *But if he can get a Sulphur from it, he hopes none will doubt but he may also get an Acid in quantity.* I answer, to conclude this mighty point, if the Sulphur he supposes he gets from it, were indeed from it, tis so little, that it would not denominate Steel a Sulphur, and that Acid in the Sulphur is much less, and would much less give Iron the title of an Acid. But let an honest Country man (Mr. *Yardly* if you please) taste filings of Steel, not knowing what it is, or any thing indeed produced from it, and if he says it tastes sour, I'll be an Asheadist.

I thought I had done with Steel for this bout, because something else comes next, but I find there's another touch upon Steel afterwards, so I'll go to that, that we may dispatch all the martial Man's business together.

The Gentleman tells us, pag. 46. *I say the Doctor's Preparation of Steel with Sal Armon. is not made with an Acid, and he thinks it is; and to prove it,* says he, *if you make it in a Retort and a strong Fire, nothing but an Alkali will rise, and the Acid will remain with the Steel; for if you take the* Cap. Mort. *and distill, you shall have nothing come over but a pure Acid, of great use in Physick.*

I am at a little loss to know who he means by *the Doctor*, it must be some body sure that is a Doctor κατ' ἐξοχήν, as *Aristotle* was known formerly by the name of the Philosopher; but the Gentleman being one that loves Verjuice well, I guess he means Mr. *Colebatch*; but I'd faign know what made him a Doctor, whether Ignorance, Confidence, or a Licence to kill, or all together. But now I think on't, *Doctor* is a Teacher, and he teaches the abuse of Crabs, Oranges, and Lemons, therefore he is a Doctor. But the Doctor's Preparation of Steel must be with an Acid. If it be, I say, 'tis because the Doctor is an Acid; for Sal Armon. is not, being a compound of com. Salt and Vol. Salt of Urin,

neither of which is an Acid; and tho com. Salt may be distill'd into an Acid, yet 'tis not an Acid before Distillat on, any more than Lead, for instance, is Glass, because it may be turn'd into Glass. But when Salt is turn'd into an Acid Liquor, it then ceases to be a Salsum, tho' it may be brought back again very easily into its old and natural Form; as the Glass of Lead may likewise soon be reduced into Lead again. And the Doctor's Preparation is made with it before distill'd. But the Gentleman adds, *if we dissolve Filings of Steel in Sp. of Salt, and distill as before, we shall find the* Cap.Mort. *the same as that made with Sal Armon. And farther,* says he, *'tis not the com. Salt, but the Acid Spirit of it, that is one part of the compound of Sal Armon. and Vol. Alkali the other; for a mixture of Sp. of Salt and Vol. Alkali will produce good Sal Armon.* Right, but these Alkalous Bodies change the acidity of the Sp. of Salt into a body not Acid, but a Salsum, its natural old Form; and in that form it works, not in that it has not when so changed.

But not to let go what the Gentleman says, pag. 46. without a Remark; he there tells us, *he is sure a Disease caus'd by Acids may be cured by Acids.* But here he unwittingly gives away the Cause, by confessing a Disease may be caus'd by Acids, which is the very thing I would prove; and there are divers kinds of Acids having different Effects, therefore Acids may cause divers Diseases. But still he holds fast to one part of the Doctrine, that all Diseases, even those caus'd by Acids, may be cured (he should have said must) by Acids. And how proves he this? *Why Acids operate upon, or alter the texture of one another; and if the texture be alter'd its qualities must be alter'd; and it must act differently from what it did.* I answer, whatever change Acids make on one another, they do not change one another from being Acids; and the Disease being caus'd by the Acid, as Acid, the change of the Acid will but change the Disease, not cure it; that must be done, by taking away

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its Acidity, or expelling the Acid; and if Acid could be ſuppoſed to expel Acid, 'twould be but one Devil entring to caſt out the other, this being as troubleſome a Gueſt as that diſpoſs'd; and the Experiment the Gentleman brings to confirm his Opinion, is nothing pertaining to Medicine or Man's Body: *For Sp. of Nitre, or* Aq. fort. ſays he, *diſſolves Silver, but Sp. of Salt mixed with them, makes it it ſhall never diſſolve Silver as it did.* But our Bowels are not Silver, to be diſſolved in Sp. of Nitre, that Sp. of Salt ſhould be a Medicine to render ineffectual.

The Gentleman. ſays, pag 47. *that I am very angry with Doctor* Colebath *for ſaying Cinnabar is an Acid, but have not proved, or ſaid it is an Alkali.* To which I tell him, I was never angry with Doctor *Colebatch* in my Life, nor with his Gentleman, but I think I ſaid enough to prove that Cinnabar is not an Acid, much leſs running Mercury 13 ſixteenths of it. But the Gentleman *refers to all the World, whether running Mercury will act as Cinnabar does; if not, then Cinnabar does all by vertue of the Sulphur embodied with it.* But I'll refer it even to the Acidiſts, by the ſame Argument, whether common Sulphur will act as Cinnabar does; if not, then Cinnabar does all by vertue of the Mercury embodied with it; and if the Argument be good, it is 13 to 3 on my ſide. But I tell the Gentleman, to leave theſe Logical Depths for Experience, Cinnabar acts as Cinnabar, and not as Mercury, or as Sulphur, otherwiſe we need not be at the trouble to compound them. And the Gentleman goes on with his Argument, *Sulphur is an Acid*; why? *Becauſe I allow it to be compounded of an Acid and an Oyl, but not of an Acid and an Alkali.* The Argument runs thus in the whole latitude of it. Sulpur is an Acid, becauſe it is compounded of a little Acid and an Oyl; and Cinnabar is an Acid, becauſe it has a little of that that has a little Acid in it. By the ſame Logick I may prove the Gentleman is a Calf, becauſe he dined upon Veal, and has a little of a Calf in him. But the Gentleman talks on, ſhewing more Ignorance,

saying, *he believes Mercury an absorber of all kind of Salts, Alkalies or Acids, rather than of Acids.* But I must tell him, it is not an Absorber of Alkalies, for they revive it, and disengage it from Acids which it hath absorb'd. But he says, *it will dissolve Mettals, which is an Argument I often use to prove the Acidity of a Body.* I answer, it will not truly dissolve Metals, it only pulverises them. But he continues to abuse me, so as a Gentleman can't be thought to do; for I never, that I know of, much less often, made it an Argument to prove the Acidity of a Body, that it will dissolve a Mettal; tho' he would be contented it should be took for one. I suppose, that if he should be convinc'd that Sp. of Sal Armon. is a good Medicine, he would prove it an Acid by its dissolving Copper. But he says, *Mercury will ferment with Gold if well managed, and make a heat not to be endured by the Hand.* But this is no Argument that Mercury is an Acid; and tho this story he has heard be true, he knows not what the well-managing of the Mercury is, or the cause of the Heat. He says, *he has often met with two Acids that will ferment with one another*; but he has given no instance, but what he is mistaken in.

But the Gentleman, pag 48. *wishes I had told them how to make the Quintessence of Wine an Alkali, (which I said I would oppose to all the Acids in the World) that it might be us'd, and judged whether it be so noble an Alkali or not.* I answer, this Alkali has been us'd, and is us'd, and judg'd, and found to be a noble Alkali; and I have cured considerable Diseases with one small Dose of it; and have had a Patient sick in bed, and fear of Death one day, and up, and pretty well on the morrow, by the use of this Alkali. But I did not say, I would oppose it to all the Acids in the World, but to Mr. *Colebatch*'s Acids; for there are better Acids than he is aware of, useful in some, tho not in all Cases. But if the Gentleman has a mind to see the effects of this Medicine, I say still, let there be a number of Patients, sick

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of such Diseases wherein I think it useful, divided between Mr. *Colebath* and I, or any other Acidist, and I will use the Quintescence, and he shall use what Acid he pleases, and if I don't recover more than he, I'll be an Acidist.

But the Gentleman *can gues what this Quintescence of Wine is*; and he supposes *it is the finest rectified Sp. of Wine, talk'd of by some, that is so subtile a Drop will not fall to the Ground. Such an Essence of Wine he has seen, and can make at any time; but he affirms it will come under the denomination of an Acid.* I answer, I confess such an Essence of Wine will come under the denomination of an Acid, if Mr. *Colebatch* says 'tis an Acid, (as he must do if he should use it) or if it be found in the ingenious Mr. *Stringer*'s Catalogue of Acids; but there is no better Argement for its Acidity. But to satisfie the Gentleman, I tell him this Alkali is as much an Alkali, as any thing he ever saw; and 'tis not his supposed Essence of Wine, or any other Essence, but a Quintessence, if he knows what that means. But yet to satisfie him sufficiently, (if he be *a Philosopher as well as a Gentleman, as*, he says, *Physicians are*) I'll tell him why this is call'd a Quintescence, and what it is. The Quintessence is the fifth state or being of Wine. The first is in the *Must* or Juice of Grapes. The second, in the Wine when fermented and brought to its perfection, as an inflamable Spirit; (and in this state the Gentleman's Essence is found.) The third, when this second inflamable Spirit is turn'd into an incombustible Salt The fourth, when this Salt is mortified and seemingly destroy'd. The fifth is its change and resurrection into a noble Alkalous and green Spirit.

The Gent says, pag. 49. *Sp. of Salt diluted in a convenient quantity of an aqueous Vehicle, is better to preserve Flesh than com. Salt; and com. Salt, by an addition of a proper quantity of Sp. of Salt, will be more useful in all respects.* I answer, if he had told us his convenient and proper quantities, the Tryal of the matter

might soon have been made. But if you take a piece of Meat season'd as the Gentleman prescribes, and another after the ordinary way, I'll engage, on Tryal, the last shall eat best; and Mr. *Colebatch* himself would say so, if he knew nothing of their seasoning.

The Gentleman adds, *that in Opposition to Mr.*Colebatch, *I affirm that Bittern is not an Alkali but an Acid, because Sp. of Salt is to be obtain'd from it in Distillation; but I have not told in what quantity, for I knew the proportion is inconsiderale to what remains after Distillation, there being at least four parts of Alkali in Bittern to one of Acid, which turns Syr. Viol. green, and answers the intentions of a strong Alkali; and he has known Soap made of it, which is not done without a great quantity of Alkali: And tho' Sp. of Salt may be obtain'd from Bittern, yet this will not prove it an Acid, or that the Sp. is any part of the Bittern, for it is but some remains of the Acid part of the Salt; for the Bittern, after Distillation, will cause Thirst more than it did before, and the Spirit will allay Thirst if judiciously used.*

I answer, the Gentleman has so often, unbecoming a Gentleman, made me say what I never said, that I now can hardly believe he is indeed a Gentleman, but rather some little Medicaster, or very small Surgeon. I never said Bittern was an Acid, because Spirit of Salt may be distill'd from it, but I said Bittern in its natural form is but a Salsum; and by skill in Chymistry Mr. *Colbatch* his damn'd fixt Alkali (as he call'd it) becomes a blessed Volatil Acid. But the Gentleman cannot conceive the Chymical Metamorphosis of Bodies, his Pyrotechny is only separatory. I told the Gentleman's Physician also, that Bittern would rise in the Fire, and come over (I did not say yeild) good Spirit of Salt. And the Gent. is much mistaken in supposing the Spirit is inconsiderable to what remains, or that Bittern has 4 parts of Alkali to one of Acid. For, as I said, it leaves nothing behind but an insipid white Earth, and that is inconsiderable to what comes over, if it be skilfully distill'd;

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nor will that Earth cause thirst so much, as Salt in which there is no Bittern. I do not believe he ever saw Soap made of Bittern, as he says, but I know Soap may be made with a very little Alkali.

But the Gent. concludes, *he is of the Opinion that I cannot produce a Catalogue of Medicines equaly efficacious in the Cure of Diseases with Mercur. dulc. Turpeth. Min. Red precip. Cinnabar. Sal Succini. Sal Martis En. Veneris. Oyl of Vitriol, Sp. of Nitre, Oyl of Sulphur, and Dr.* Colebatch's *Elixir Vitrioli; all which operate by vertue of their Acids: for if they be divested of their Acid Particles they will never produce those effects. And if the use of Alkalies cannot be thus demonstrated, he shall remain a Proselyte to the Doctrine of Acids. And thus,* says he, *he has given his Thoughts in answer to those Objections that seem most material in the Dialogue, but has omitted to take notice of what has not a relation to Acids and Alkalies, being the Cause or Cure of Diseases, and in so doing, hopes he has answer'd the Doctor's Request.* I answer, I can produce the same Catalogue, and a better. But the Medicines named are not the invention of any Acid Doctor, but were common to all Physicians, before any such sharp Fancy had turn'd the Brains of any Pretenders to Physick; nor are they all Acids, nor do any of them, except the Spirits, operate by vertue of their Acids. But I might say, if I could allow my self to reason as the Gentleman does, by vertue of their Alkalies; for if you take away ☿, ☽, and ♂, the Acids now joined with them, will never produce the Effects alone. But I know better, they operate by vertue of their Texture resulting from their Conjuction; even as Gun-powder does not operate by vertue of Sulphur, or either of its Ingredients, but by Nitre, Sulphur, and Charcoal all togethter. And if the use of Acids (or Alkalies either) cannot be better demonstrated than the Gentleman, or his Master *Colebatch*, have demonstrated their pretended Hypothesis of Acids, I shall not be a Proselyte to either,

The Gentleman has at last answer'd his Doctors requeſt, and pick'd out here, and there an expreſſion in

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my Dialogue, which he thought he could say some thing to, but how well he has answered what was indeed Material, and how much he has Omitted, I must yet leave to the judicious Reader of my Dialogue, wherein I think stands unanswer'd enough to shew *the groundlesness and danger of the pretended new Hypothesis of Acid and Alkali; as well as the immodest self applause, shameful contempt, and abuse of all Physicians, gross mistakes, and great ignorance of the Pretender:* Which want of Learning and Vertue the Gentleman in his Letter, has not so much as excus'd; wherefore I hope his Master is also Conscious thereof, and will amend. And the Gentleman perhaps in a little time may see, that he is a Proselyte to so very sensless, and mean a Sect, he may be asham'd on't, or he may be blown with some less biting or dangerous Maggot, or become fond of some newer Fancy; since Gentlemen are inclinable it seems, to be as well pleas'd with their Physicians for imposing new Fashion'd sufferings upon them, as with their Taylors for putting them into new fashion'd Cloaths: And for such Gentlemens sakes I have a good mind, before I Conclude, to start a yet newer Hypothesis that may serve them, when that of Acids is out of Fashion, which when it shall be strongly asserted by some Man of Confidence, I don't question but it will take, please as well, be more effectual, and less dangerous than the practice of Acids.

I have been inform'd by a Person of Credit, that a certain Doctor in *France*, who was fam'd for his Cures, gave nothing to his Patients but Brick-dust. And I have heard of another of considerable repute in another Place, who, as a Panacea, gave all that came to him convenient quantities of common Water. These Doctors wanting a more generous Principle, both disguised their Medicines; they seem to have acted contrary, but which appear'd to have the better success, I was not well inform'd; but some of the Patients of both no doubt recover'd, and some of them died, those that lived would

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ſwear the Doctor heald them, but thoſe that pack'd off were left out of the Catalogue of his Cures. But let it be how it will, the hint gives me ground enough to build a new Hypotheſis upon, now that of Acids grows old. Brick-duſt and Water then ſhall be two Principals, into which bodies may be reſolved. Diſtillation and Tranſmutation reduces all into them. Whatever is Liquid comes over either in the form of Water, the one principle required, or in the form of Oyl, or of a ſaline Spirit. The Oyl's Unctuoſity and Inflamableneſs may ſoon be changed, and the ſapor of the Salts be deſtroyed; the *Vita Media* of both may be ſoon took away, and the Liquor reduced into common inſipid Water. But whatever is ſolid may be by the Fire reduced either to a Liquid, to be wrought on as before ſaid, or by burning will be reduced to a *Caput Mort.* which expos'd to the action of the Air, will be rotted and turn'd into common Earth, which then by art may be made into Brick, and then eaſily pulveriſed (if you will follow the French Man) fine enough for the Stomach of a Lady. How theſe two Principles are concern'd in the Life and Death of all things in the Macrocoſm, I could readily teach, if an exact Phyſiology were thought neceſſary to a Doctor.

Now let theſe two Principles be taken, inſtead of Acid and Alkali, for the Life and Death of things, and for the Cauſe and Cure of Diſeaſes, (it ſhall be all one to me, which is the Killer, and which is the Curer) and I will make out the Aitiologie of all Deſeaſes, and their Cures from them. But foraſmuch as Gentlemen now-a-days are generally great lovers of the Bottle, and will rather chuſe a doſe from the Glaſs, than from the Trowel, and a Phyſicians buſineſs is to humour them, Brick-duſt ſhall be the cauſe, and Water the cure of all Diſeaſes. But becauſe we will recommend our ſelves by talking learnedly as Phyſicians ought, that is ſo as our Grand-mothers may not readily underſtand us, we will call them Arid, and Humid, and ſay Arid is the Cauſe, and Humid the Cure of all Diſeaſes.

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Let us begin at the Mouth, as Phyſicians commonly do, at which death is ſo often let in, in this our luxurious and Pharmacutick Age. It is apparent that no Food, if it abound with Arid, can agree well with us; therefore nature has placed certain Cataracts under the Tongue pouring out their Humid Saliva, which tempers the Arid and carries it along; without which even deglutition cannot be performed, without ſoon terminating our Life by choaking. This Humid accompanying our Food down into the Stomach, there digeſts our Food, and that not by its Acid, or Alkali, bitterneſs or ſweetneſs, or any other affected reliſh, but by vertue of its ſelf, as Humid. The truth of which any Man may be ſatisfied with, if he but conſiders how Water is neceſſary for the macerating of all things fermentable, in order to a ſeparation of their parts, the Humid from the Arid, the profitable from the unprofitable. Now when a due quantity of Humid is adminiſter'd by the Salivia, which carries our Food down, mixes and ferments it, and Drink being added in a convenient quantity, (the more watry the better) farther to dilute it, and to ſupply Matter for more Saliva, the mixture paſſes the Pylorus, and in the ſmall Guts is farther altered; whence the Humid Chyle, with a little fine Arid to increaſe or ſupply the defects of the ſolid parts, is ſeparaby the Lacteals; but moſt of the Arid inviſcated by the Gall and Pancreatick Juice, (which make a tough ſlimy Matter,) is carried down as noxious through the Guts, and turn'd out at the back Door. Now if for want of a ſufficient quantity of Humid in the Stomach, there is not a due natural Fermentation, ſo as that the Particles in the compound have not liberty to move without breaking their Figures againſt one another, or that they ad-here and combine, and remain not enough ſeparated, they are not only unfit to ſupply the defect of the Vital Juices, but lying heavy in the Ventricle they don't work up, and paſs out of the Pylorus as they ought; whence proceed lothings, pains in the Stomach, and

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Spontaneous Vomitings, *&c.* To remedy which, ſome large draughts of Humid being given, the indigeſted matter is eaſily ejected, the Stomach waſhed clean, and render'd fit for its office again, till it be again over-charg'd with Arid, or defrauded of its due quantity of Humid. But if the abounding Arid, be not ſo much as totally to hinder the fermentation in the Stomach, but yet the Humid be not ſuch as is ſufficient for the due performance thereof, then a groſs Chyle, wherein Arid does abound, is retain'd, inſeparable from it in the *Duodenum:* The groſſer part of which being not able to enter the Lacteals, is carried downwards; which being too tough and clammy adheres to the ſides of the Colon, and lies too long in its Cells, cauſing the Cholick, dry Gripes, and divers miſchiefs of that nature, till by the Irritation and Excoriation of the Latera of the Guts, nature pours forth the Lymphatick Juice, and ſo there are produced Fluxes, more or leſs, according to the greater or leſs diſorder and irritation of the rough Arid Particles. But that part, which being not ſo groſs, is carried into the Lacteal Veins, ſometimes adheres there, in the ſmall ramifications of thoſe Veſſels, cauſing Obſtructions; whence the nutricious Juice being not plentifully carried into the Blood, a Tabes or Aridura muſt needs follow. But by the due and timely adminiſtration of Humid, theſe Arid Particles are waſhed out into the Blood, and ſeparated thence by Urine, and the Chyle again freely diſtributed to the recovery and health of the Body.

But if theſe Arid particles are too abundant in the Blood, and not duely ſeparated by Urine, they do not only render the Blood too thick, and ſo retar'd its due Motion, but after ſticking in the capillary Arteries and Veins, hinder its Motion in divers particular Places, whence the Blood ſtagnating there, a preternatual Ferment is excited, and the Blood put into an inteſtine Motion, and thence come Feavers of all ſorts, differing according to the different Circumſtances of places obſtructed, and of more or leſs Arid Matter. But by a proper adhibition of the friendly Humid, theſe rough Arid

Arid particles are made flow, and carried off by Urine or Sweat, and the heat alay'd, and so the Patient recovers.

But sometimes when those abounding Arid particles, are not carried off by a sufficient quantity of the Humid, either by Urine or insensible Perspiration, then they fix in the Limbs and outward parts, from whence there follow Gouts, Rhumatisms, *&c.* which by a large administration of Humid, (if the Disease be not too stubbornly fixt) are carried off, or their rough Acrimony attemper'd, and so the Patient enjoys Ease and Health. And I challenge all the Acid Doctors in *England*, even *Alkins* himself, could we have him again from the lower World, with all the Lemons and Oranges in *Spain*, or Oyl of Vitriol, in *Europe*, to cure half the Patients I will cure of the Gout, by a regular course of pure Humid. But if I should go from the Blood to the *succus Nervosus*, I could abundantly shew what dismal effects the abounding pernicious Arid does, in thickning and in stoping the animal Spirits, and so causing Apoplexies, Palseys, Megrims, Deliriums, *&c.* Yea I could shew you how these rough Arid particles fixing in the membranes, and other parts that are tense, cause Pains; but that this specimen would swell into a large Book: and I could give so rational an account of the matter that most Gentleman that love new Discoveries might readily believe it the very truth, and be fond on't, unless some one or other that should chance to have a Dropsie, should object against my new Doctrine, and say, what, will this fellow pretend his Aridum is the cause of that, where it is Water which apparently abounds? I answer, let the Gent. have a little Patience, if I make out this Point, I hope he will believe I am able to account for all the rest that may be explain'd on the same Hypothesis, and I need not proceed any farther in this Specimen. The Dropsie it self, say I, is caus'd by the Pernicious abounding Arid, and cured by the due administration of the friendly Humid. For the demonstration of which let it be consider'd, that even the Humid's unequal and undue distribution and stag-

nation is a Diſeaſe; even as in the Body politick the ſetling or ſtagnation of the Vital-blood-mony in any of the members, and chiefly in the Head, is not without very many bad effects. So when the Humid ſtagnates in the Legs, Head, Cods, Abdomen, or habit of the Body, it gives names to divers ſorts of Dropſies; for I will not ſay of the bleſſedeſt Humid, as Mr. *Colebatch* does of his Acid, there can never be to much of it. But nevertheleſs Arid, with his rough and harſh particles, I affirm is the cauſe of the Humids abounding, wherever it is unduely diſtributed; for if a Man Perſpire well, and Piſs well, he will never have a Dropſie. But when the Arid particles abound, and obſtruct the natural Courſe of the Humid, which is ordain'd to dilute, ſeparate, and waſt them off, the Humid it ſelf by its preſſure breaks ſome Veſſels, or paſſes through outlets corroded by the Arid, and ſo falls into the cavity of the Abdomen, or is extravaſated into ſome other part of the Body, which effect we call a Dropſy. But now for the Cure of it, by Humid you'll ſay it is impoſſible, this is not adding Oyl to the Fire, but as bad, Water to a deluge. Have a little patience Gent. and I'll warrant you I'll demonſtrate it, better than Mr. *Colebatch* did the cure of four Stomachs by Oyl of Vitriol.

Let it therefore be conſider'd. That the extravaſated Humid cannot be diſcharg'd the way it came, not only becauſe the paſſages it ſhould have went are ſtop't for want of its due Courſe in the Veſſels, but becauſe it has loſt its Motion, and ſo lying long ſoaking the more fleſhy parts, diſſolves ſomewhat of them, and ſo becomes clammy: Now the obſtructing Arid muſt be carried off, which cannot be done but by a Humid, thinning the Blood which is in Motion, and tho the ſtagnated Humid may be ſomewhat increas'd by the addition of more Humid, yet it will be render'd more thin, and apt to flow when the obſtructing and corroding, Arid is waſhed away, and there will be nothing to hinder Nature; but by the Motion of the Parts, the Humid is preſs'd out into the Veſſels, and carried off again.

again And now I think I have sufficiently shewn how the hardest part of this new Doctrine may be accounted for; but yet I must needs, as a Friend to the Faculty, insinuate something of the necessity, or at least, conveniency of the direction of a Physician to order proper Times, Quantities, Diet, Wine, Exercise, *&c.* in this easie Course of Physick; for tho' I don't question, but by a little discretion a Man may cure or prevent most Diseases by this new method, chiefly by washing the Pot, *viz.* the Stomach clean when ever it is foul; yet I must warn my Readers (which let be a caution to Drunkards, who may think they can't hurt themselves at all with humid) that some humids, as sophisticated Wines, and unripe Mault Drinks, have a gross and noxious Arid swimming in them, which is very apt to Precipitate, and cause divers ill effects in the Body: And that any Man may do himself a mischief, even by the most wholsome and innocent things indiscreetly used, as well as the Physician by slighting his advice, which he is always ready to give on advantagious Conditions. I could also confirm this Hypothesis by a large account of Cases in Practice, but I shall forbear at present, only offering one Consideration, *viz.* That all the real benefit received by Drinking the Waters, comes merely by the large quantities of Water taken, washing the Bowels and diluting the Blood and other humours of the Body, and not by the nasty Minerals they are impregnated with, which Nature abhorring rejects with disturbance; and I would advise Persons hereafter to repair to some pure Spring, and there Drink as at the usually frequented places, and if they don't receive more than usual benefit, I will recant and turn an Aridist, and be as ready to assist *John*, or any other Hypothetick in the Doctine of Arid, as I am now farther to demonstrate that of Humind, as that which I think will be the most safe, and likely to do my Friends a kindness, now the dangerous Doctrine of Acids begins to go out of Fashion.

FINIS.